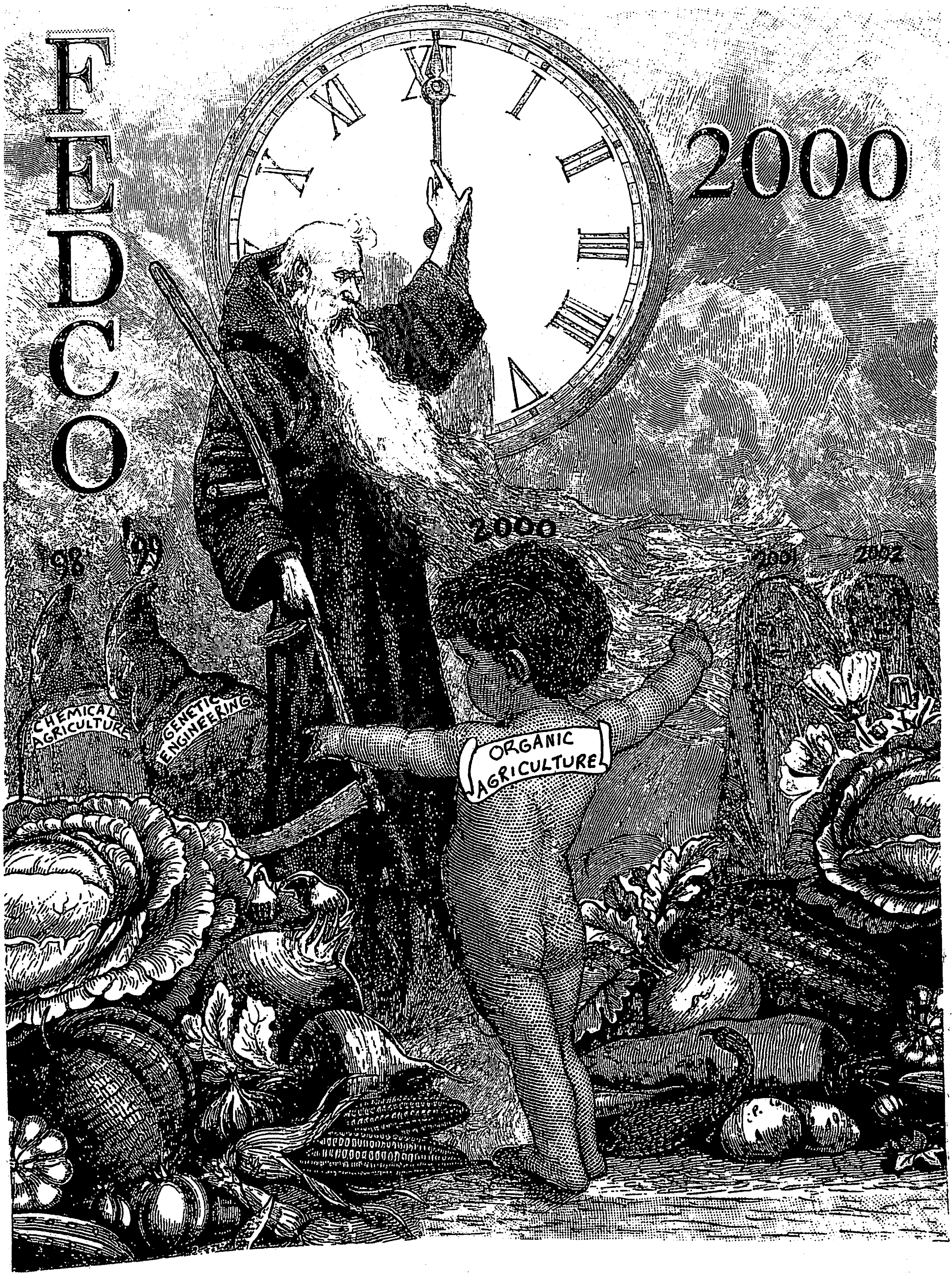
FEDCO

2000


'98
'99
CHEMICAL AGRICULTURE
GENETIC ENGINEERING
2000
ORGANIC AGRICULTURE
2001
2002

Ordering information

In This Catalog

	Goods offered	Descriptions begin	Order form	Discount deadline	Ordering deadline	Shipments
Seeds	vegetables, flowers, & herbs	page 10	page 52C	earlybird Jan. 28	March 24	mid-January-March
Books		page 71	page 52C	earlybird Jan. 28	March 24	mid-January-March
Organic Growers Supply	soil amendments, cover crops, garden tools & supplies	page 89	page 52G	none	none	year round
Moose Tubers	seed potatoes, onion sets	page 78	page 52E	February 25	May 1	mid-April-early May
Seedings	organic seedlings	page 52A	page 52A	none	March 10	May 4-7 pickup only

Our FEDCO TREES catalog, available in October, lists fruit trees, berry bushes, ornamentals, perennials and tender bulbs.
Our FEDCO BULBS catalog, available in June, lists fall-planted flower bulbs and garlic.

Full index on the back cover. Phone (207) 873-7333

A Fedco Primer for New Friends and Old

Fedco has four divisions: Seeds, Moose Tubers and Organic Growers Supply, Trees, and Bulbs, and sends out three catalogs annually. We work out of two warehouses on the Upper Bellsqueeze Road in Clinton. Our business office is in nearby Waterville. We do not have a retail store. We deal exclusively by mail and fax order except during designated pickup and public sale days and our annual excursions to the Common Ground Country Fair, MOFGA's spring event and the NOFA Summer Conference.

In our part of the world frosts can occur nine months of the year and the ground remains frozen for about five months from late November until mid-April.

Trees are alive, highly perishable, are dug in the spring after the ground thaws, must be kept cool and wet and cannot freeze. **We ship trees and perennial plants only in the spring.**

Fall bulbs and garlic are alive, perishable, need to be kept cool but cannot freeze. **We ship only in fall just before planting time.**

Seed potatoes and onion sets are alive, perishable, must be kept cool but cannot freeze. **We ship only in April and May.**

Seeds are alive, dormant, must be kept cool and dry, may freeze if kept dry. **We ship in winter/early spring. In April, we close the seed division for the season.**

Supplies are not alive. **We ship year-round. We ship cover crops,** which are alive, **year-round when available.**

How to Order

Mail us your order. Send to Fedco Seeds, PO Box 520, Waterville, ME 04903.

Fax us your order to (207) 872-8317. Look to the right for more details. Fax orders include credit card number and expiration date and pay a $2 handling charge. Fax orders are not eligible for earlybird discount.

All orders must enclose check, money order, or credit card information. We accept Visa and MasterCard but request that orders under $25 pay with a check or money order. Please do not send cash. Sorry, we do not accept food stamps.

We will bill your credit card when we ship your order. We will bill or refund you for any adjustments as each order is completed. We do not charge the adjustments to your credit card.

Because they work out of separate warehouses and/or have separate shipping schedules, each division has its own order form.

- Please use the proper order form for each division.
- Please do not mix orders from separate divisions on one form.
- You may send in separate forms from more than one division at the same time and pay with one check. Figure totals for each division on the proper form, then use the box on page 52C as a worksheet for figuring your grand total.

Fedco Seeds guarantees that all items we offer are fully satisfactory. If you are dissatisfied for any reason, we will either replace the item or refund the purchase price.

Limitation of Liability

Because good results depend upon weather, soil and cultural practices over which we have no control, we limit our liability in all instances to the purchase price of the seeds, as is customary in the seed trade. The liability of Fedco Seeds for breach of warranty, or any loss or damages arising out of the purchase or use of our products, including loss or damages resulting from any negligence whatsoever on our part, or strict liability in tort, shall be limited to the purchase price. By acceptance of the merchandise, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale, and that they constitute the entire agreement between the parties regarding any warranty or liability.

Claims for defects in Fedco Seeds' products should be presented to Fedco Seeds as soon as possible after discovery. Failure to assert claims within 30 days after discovery renders this warranty null and void.

Faxing your Order

- Use our dedicated fax line: (207) 872-8317.
- Double-check your order **before** you fax to avoid catalog number and pricing errors.
- Make sure your order is legible; fax orders lose clarity in transmission.
- Use our order forms. Computer-generated maverick forms take us much longer to process.
- Please **mail, don't fax,** long grid forms—save time and money!
- Expect a traffic jam if you fax right around deadline time.
- Mail your order instead of calling us if you have trouble getting through.
- Please **do not mail** another copy if you fax your order.
- Please don't call for order confirmation. We'll call you to acknowledge your fax order.

How Not to Order

- Sorry, we do not accept telephone orders. These entail extra staffing costs and many inaccuracies.
- Sorry, we do not have a rush order service. We fill all orders in the order in which we receive them as promptly as possible.
- You may not combine orders from different divisions to qualify for discounts.
- We will return the following orders unfilled: illegible orders, multi-page EZ forms, maverick computer-generated forms. We will mail you the proper order form so you can try again. If you order potatoes or supplies on the seed form we will fill the seed portion and return the other parts unfilled with the proper form.

Fedco Facilitation

- Phone us: (207) 873-7333.
- Regular hours: Dec.-April, Mon-Fri 9am 5pm. Jan.-March, Sat 10am-noon. We are also available at irregular hours the rest of the year. If you don't get a live person, please leave a message on our answering machine.

Use this line to:

- Request more catalogs or order forms.
- Get solutions to ordering questions.
- Receive freight quotes and prices for bulk quantities.
- Get your cultural questions answered.
- Track your order.
- Resolve problems.

We ask your cooperation in helping us hold prices down by avoiding the following calls which add to our labor costs without offering you any benefits:

- Y2K calls: We do not have sufficient stock to ship any seed orders until January.
- Frozen spuds: We cannot ship potatoes until April because we do not have a potato storage facility. Our seed stock arrives at the end of March.
- Nervous Neds & Nellies: For seeds and supplies please allow at least 2-3 weeks after sending order before calling. For spuds, see above.
- Order corrections: For one or a few mistakes please mail back the correction form on the back of your pick sheet instead of calling.
- Deadline dilemmas: At, around or just past deadlines, please mail or fax your order. We'll do the best we can. Please do not call.
- Way past deadlines: We take order deadlines seriously. Please remember the old refrain of the Brooklyn Dodgers and "Wait till next year!"

Catalog Credits

Original art: Kirk Anderson, John Bunker, Jennifer Jones, Jocelyn Langer, Wendy Karush, Sue Szwed, Gabriel Willow
Seeds copy & cultivar selection: CR Lawn, Nikos Kavanya
Moose Tubers copy: Alison LaCourse
OGS copy: David Shipman

"have never seen more 'do nots', and we won't fill your order—will return your order—must be a bunch of mean Yankees up there."

How to Order Seeds & Books

- All orders must be on one of our 2000 order forms. **Please, no lists.**
- Use the EZ order blank in the centerfold to order 59 items or fewer.
- Use the large grid order form to order 60 or more items. Need a grid? Call or fax us. Please don't send multi-page EZ forms.
- Minimum order is $5.
- Order cover crop seed from Organic Growers Supply, see p. 4.

Deadlines

Orders received by	qualify for:
Fri. Jan. 14	Early pickup.
Fri. Jan. 28	Earlybird discount, mail orders only.
Fri. Feb. 11	Regular March pickup.
Fri. Mar. 24	Final order deadline.

Please allow adequate mailing time: 2 days in Maine, 3 days New York and New England, 4 days outside New England.

Discounts

All discounts are figured from the subtotal on your order sheet.

Volume discounts:

Orders over $100 deduct 10%
Orders over $200 deduct 15%
Orders over $300 deduct 20%
Orders over $600 deduct 22%
Orders over $1000 deduct 24%

Repeat orders over $50 qualify for the same volume discount as the first order, provided they are to be sent to the same address.

Pickup discount of 10%: Orders must be picked up in our warehouse at one of the designated pickup times (see Delivery Options for details).

Earlybird discount: All mail orders received by Fri. Jan. 28 deduct 2%. Fax orders do not qualify.

Organic grower discount: Members of MOFGA, NOFA, PASA or a comparable organic growers organization receive a 1% discount regardless of ordering date. You need not be certified organic or a commercial farmer to take the discount, and you may join MOFGA or NOFA with your seed order. Please specify which organization/state chapter you are joining. See page 6, Resources, for dues.

Sales tax

Maine residents pay 5.5% on flower seed and books. These items are highlighted on the totals page of the long grid order sheet. **Please do not charge yourself sales tax on vegetable and herb seed.** Maine farms and retailers: Send us your state resale ID number.

There is no sales tax on anything for folks outside of Maine.

Delivery options

UPS/Priority Mail

- We ship via UPS ground or USPS Priority Mail; our choice, based on weight.
- We pull and ship orders according to their *arrival* date, *not* their postmark date.
- If you'd like us to hold your order for a later shipping date, please attach a note to your order form.
- We will not ship **any** orders before Jan. 6.
- We ship orders as soon as possible, often within one week of receipt, always within two weeks.
- Early orders (before Jan. 20) and late orders (after Mar. 10) receive the fastest service.
- Orders around and just after earlybird discount take longer.
- Missing your shipment? Allow three weeks from your mailing date, then call.

PICKUP Come to our warehouse in Clinton. See the map on page 4.

Early pickup Pick up your order Thurs or Fri Jan. 20-21 from 9:00-4:30. Sorry, the warehouse is not open for pickups any other days until March. We must receive your order by Fri, Jan. 14. We estimate that we will have 85-90% of your order ready at early pickup. You may return for the rest of your order in March, or we can ship it to you.

Regular pickup You may pick up your order Wed-Fri, Mar. 1-3 or Mon-Fri, Mar. 6-10 from 9:00-4:30. No weekend pickups. We must receive your order by Fri, Feb. 11.

Late pickup for orders received after Feb. 11. Pick up during the Moose Tubers pickup, Thurs-Fri, Apr. 13-14, 9:00-4:30, and Sat, Apr. 15, 9:00-noon or at the Fedco Tree Sale, Thurs-Fri-Sat-Sun, May 4-7, 9:00-3:00. (Thurs is reserved for customers with pickup orders.) Late orders will not be available for pickup in March.

TRUCK Michael Gulick trucks certain large Vermont and New Hampshire orders during February and March. Contact Michael at (802) 525-3800 bv January 15 to arrange this ser

Backorders are item:

later. Our aim is to minimizelieve that we sell only organic seed. In fact, only a
- Early orders receive the moganically grown, and these are clearly noted in the
- We ship backorder items ies of organic seed are just beginning to come into them. supplies will be limited, and the cost to us about
- We batch other backorder ily grown seed. To gauge interest in organic seed,
- Allow several weeks aftechoice of organic and conventionally grown seed backorder items. , and passing on some of the cost differential.
- We will ship all backordeorm of National Organic Standards, we are listing anything or have not crops which have been certified by an authorized
- REFUNDS will be encl growers, although following accepted organic enclosed with first shi variety of philosophic or economic reasons not to
- NEW THIS YEAR: Fl have identified in the catalog where uncertified **fedcoseeds.com** for out herbicides, pesticides and chemical fertilizers. out-of-stocks for all d organic certification standards throughout the

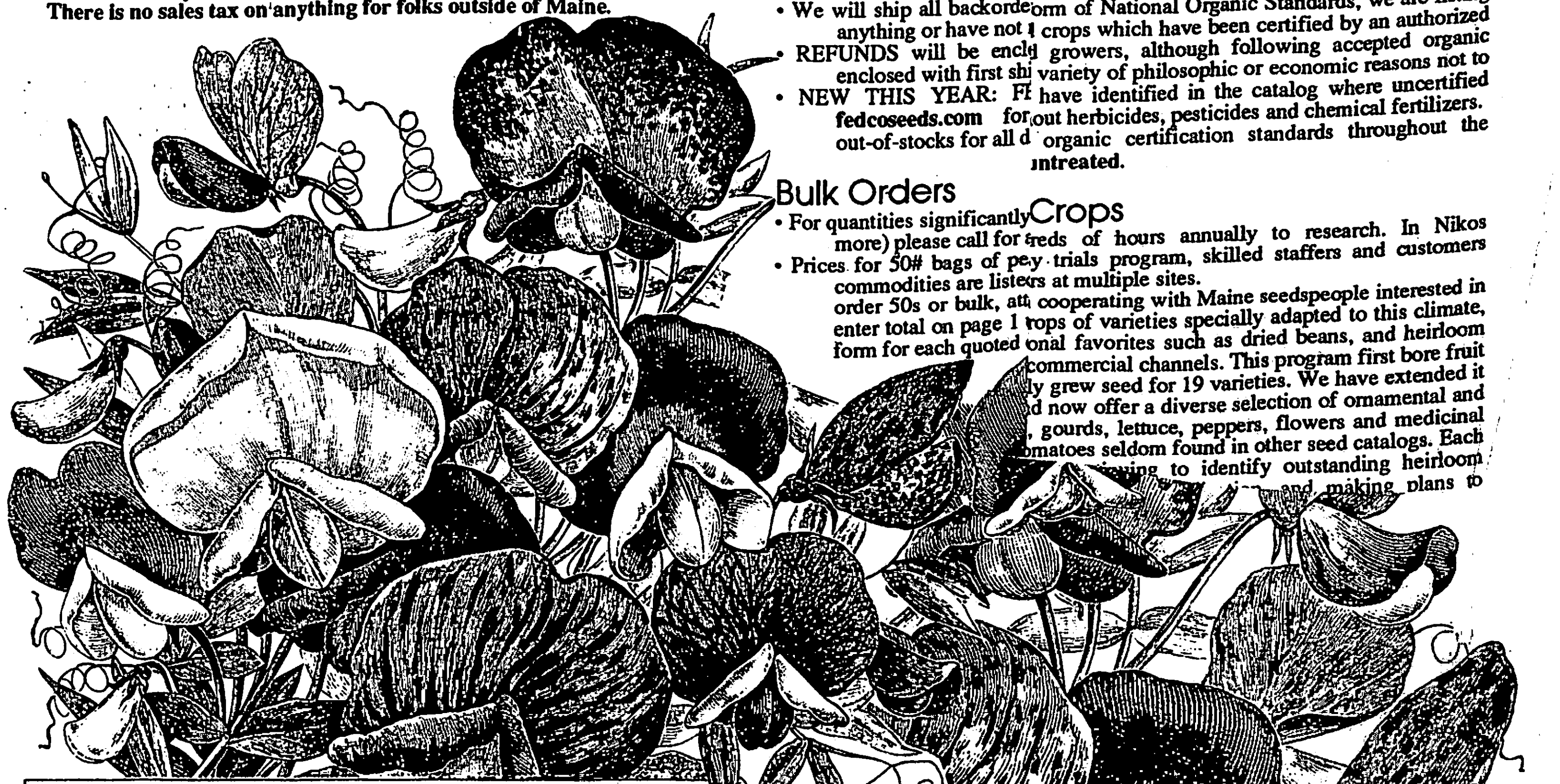
intreated.

Bulk Orders

Crops

- For quantities significantly
more) please call for reds of hours annually to research. In Nikos
- Prices for 50# bags of pe y trials program, skilled staffers and customers commodities are listers at multiple sites. order 50s or bulk, att cooperating with Maine seedspeople interested in enter total on page 1 rops of varieties specially adapted to this climate, form for each quoted onal favorites such as dried beans, and heirloom

commercial channels. This program first bore fruit
ly grew seed for 19 varieties. We have extended it
d now offer a diverse selection of ornamental and
, gourds, lettuce, peppers, flowers and medicinal
omatoes seldom found in other seed catalogs. Each
to identify outstanding heirloom
and making plans to



"You guys are my heroes! I don't know what I'd do without you (even the evil genius who designs the catalog and order forms)."
John Tecklin, Nevada City, CA

How To Order Moose Tubers Seed Potatoes

- All orders must be on one of our Moose Tubers 2000 order forms.
- Use the order blank in the center of the catalog on page 52E.
- Variety descriptions begin on page 78.

Organic Growers Supply To Order Supplies & Cover Crops

- All orders must be on one of our OGS 2000 order forms.
- Use the order blank in the center of the catalog on page 52G.
- Introduction begins on page 87, descriptions on page 89.

- Contact us if you need another copy or would prefer a grid order form.
- Be sure to include shipping charges (see chart below).

Moose Tubers Deadlines

Orders received by:	qualify for:
Feb 25	Volume discounts & best selection
March 24	Moose Tubers pickup
April 21	Tree Sale pickup
May 1	Final orders for the season, potato supply limited

Moose Tubers Discounts

- We must receive your order by February 25.
- Figure your discount from your order total **before** shipping.

Orders over $100 deduct 5%
Orders over $200 deduct 10%
Orders over $400 deduct 15%
Orders over $850 deduct 20%

For amounts over 1200 lbs, please call or write for our bulk price list.

Moose Tubers Shipping

- **We begin shipping Moose Tubers orders in mid-April.** We cannot ship before that; please do not ask us to do so.
- We will ship orders received by February 25 by April 21.

We ship sunchokes separately in early May.

Fall bulbs and garlic are alive, [illegible]
freeze. **We ship only in fall just before planti**
Seed potatoes and onion sets are alive, perishabl
cannot freeze. **We ship only in April and May.**
Seeds are alive, dormant, must be kept cool and dr
We ship in winter/early spring. In April, we
for the season.
Supplies are not alive. **We ship year-round.** We
are alive, **year-round when available.**

How to Order

Mail us your order. Send to Fe
Waterville, ME 04903.

Fax us your order to (207) 872-
for more details. Fax orders
number and expiration date a
charge. Fax orders are not eligible

All orders must enclose check, money order, or credi
accept Visa and MasterCard but request that orders
check or money order. Please do not send cash. Sorry
stamps.

We will bill your credit card when we ship your orde
you for any adjustments as each order is completed
adjustments to your credit card.

Because they work out of separate warehouses and/o
schedules, each division has its own order form.

- Please use the proper order form for each division
- Please do not mix orders from separate divisions
- You may send in separate forms from more than
time and pay with one check. Figure totals for eac
form, then use the box on page 52C as a worksheet
total.

Sales tax: Maine residents only! Items #9000-9999 are taxable. No tax on any other items. No tax for out-of-state residents. Maine farmers: Please send us your state resale number.

OGS Deadlines

Orders received by:	qualify for:
Jan. 14	Early pickup
Feb. 11	March pickup
March 24	Moose Tubers pickup
April 21	Tree Sale pickup

There is no final order deadline for OGS. After the Tree Sale, the OGS warehouse will be open Wednesdays from 2-5 pm for pickups and walk-in customers.

OGS Discounts

- There is no deadline for discounts.
- Figure discounts from your total **before** adding shipping charges.

Orders over $100 deduct 5%
Orders over $200 deduct 10%
Orders over $600 deduct 15%
Orders over $1200 deduct 20%
Orders over $2500 call for a quote

OGS Shipping

- **We begin shipping Organic Growers Supply orders on Jan. 12.** Orders received before Jan. 12 will be shipped by Jan 14.
- Generally we will ship your order within one week; however, we will not ship orders received after March 17 before April 13.

Delivery options

UPS/Priority Mail

- We ship via UPS ground or USPS Priority Mail; our choice, based on weight.
- Prices do not include shipping. Use the chart below to figure shipping costs.
- We ship all orders to **Alaska and Hawaii by Priority Mail.**

Parcel Post

- We do not use parcel post for shipping.
- If UPS can't find your house, please arrange delivery to your workplace or a neighbor.
Or have your order shipped **Priority Mail;** use the rates for Alaska and Hawaii.

Common Carrier

- In New England, we have a flat rate for pallets weighing up to 2000 lbs.
  - In ME the price is $50.
  - VT & NH: $65.
  - MA, RI & CT: $70.
- For delivery to other states: If your shipment weighs more than 500#, call us with the estimated weight and the destination zip code. We will check with trucking companies and quote you a price. In some instances UPS will be cheaper.

Pickup

We send a postcard map and reminder to those planning to come.

Early pickup **OGS, not Moose Tubers.** Thurs and Fri, Jan. 20-21, 9am-4:30pm.

March pickup **OGS, not Moose Tubers.** Wed-Fri, March 1-3, and Mon-Fri, March 6-10, from 9am-4:30pm.

Moose Tubers pickup Thurs and Fri, April 13-14 from 9am-4:30pm, and Sat, April 15, 9am-noon.

Tree Sale pickup Thurs, Fri, Sat and Sun, May 4-7, from 9am-3:00pm. (Thursday is reserved for customers with preorders, and the warehouses will not be open to the general public.)

- We do **not** ship to Canada, and will not provide materials required for importation permits.

de on the table below and read across to the column for the weight of your order to find your shipping cost.
ighs more than 40 pounds, multiply the weight of your order by the per-pound shipping price.
m charge is $3.50.

If your order weighs ☛	under	2 to	up to	up to	up to	up to	up to	up to	up to	over	over	over
And your zip code begins with	2 lbs.	5 lbs.	10 lbs.	15 lbs.	20 lbs.	25 lbs.	30 lbs.	35 lbs.	40 lbs.	40 lbs.	250 lbs.	500 lbs.
030-059	$3.50	$5.65	$6.40	$7.00	$7.70	$8.30	$9.00	$9.70	$10.30	26¢/lb	15¢/lb	call for a quote 207-873-7333
010-029, 060-069, 119-136	$3.50	$6.00	$6.60	$7.35	$8.30	$9.25	$10.15	$11.10	$12.00	30¢/lb	20¢/lb	
070-089, 100-118, 137-227	$3.50	$6.50	$7.15	$7.60	$8.60	$9.75	$10.95	$12.15	$13.30	34¢/lb	24¢/lb	
228-475	$3.50	$6.50	$7.50	$8.25	$9.70	$11.20	$12.65	$14.15	$15.60	39¢/lb	30¢/lb	
476-574	$3.50	$6.50	$8.00	$9.70	$11.70	$13.75	$15.75	$17.75	$19.75	49¢/lb	35¢/lb	
others except AK and HI	$3.50	$6.50	$9.75	$12.70	$15.70	$18.75	$21.65	$24.70	$27.55	69¢/lb	40¢/lb	
AK and HI	$3.50	$6.50	$15.75	$22.25	$28.70	$34.75	$40.75	$46.90	$53.00	$1.20/lb.	▨	

FEDCO SEEDS

Co-op Seed Packers

Welcome to our 22nd annual garden seed order! We never dreamed when we started in 1978 that we would be distributing nearly 400,000 seed packets a year, selling almost a half million dollars of seeds and books and better than $1.4 million overall. Our wildest fantasies did not include construction of a 12,500 square foot facility for organic grower supplies and potatoes at a cost of better than $300,000. Yet, after another record year of astounding 34% growth, after nearly doubling our volume over the past three years, here we are!

We thank you for your overwhelming support; we will continue to strive to prove worthy of it. Needless to say, rapid growth brings challenges. The unforgiving calendar will not stretch to accomodate peak order season. We can, and have, hired more people and expanded our warehouse space to fit them and all the extra goods. Last year we revamped our whole shipping operation. This past summer we have redesigned our computer systems to streamline the flow of your orders. From collating to invoicing to backorders, most seed orders will be entirely computerized this season. Our aim is to reduce errors, speed order turnaround, and offer as good or better service than we did when we were smaller and the process was more intimate. Please keep letting us know how we're doing.

Cooperation Works for Us

Because we do not have an individual owner or beneficiary, profit is not our primary goal. We are one of the few seed companies in the United States organized as a cooperative. Consumers own 60% of the cooperative and worker members 40%. Consumers and worker members share proportionately in the cooperative's profits through our annual patronage dividends.

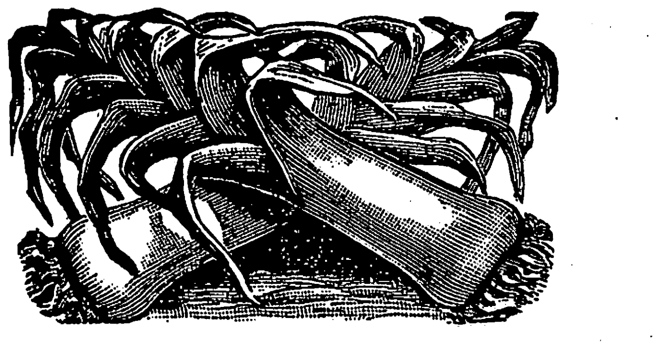
Our cooperative structure gives workers a real voice in running the company and a real stake in its success, enabling us to attract and retain talented workers. Year after year our staff turnover has been very low.

Our company culture derives from our history as a cooperative. Our first customers were other cooperatives and we developed many of our procedures specifically to serve them. Although we have diversified in recent years, almost half of our business still comes from cooperative or group orders. Our dedicated group order coordinators are partners in our business.

The cooperative ethic recognizes that we are all in this together. What is good for our managers should be good for our workers and good for our customers and vice versa. Cooperation is a two-way street. We design our orders to encourage you to participate actively. When you follow our directions, use the correct forms and meet our deadlines you are doing some of the work involved in processing your order and helping us keep our prices low and our service brisk. When you share your experiences with us, visit us at our warehouses and fair booths, and let us know what you need, you are a partner in strengthening our cooperative.

Make Cooperation Work for You

You can make cooperation work for you, too, by creating group orders which can take advantage of our substantial volume discounts. It is easy to form a group: Get together with friends, neighbors, co-workers or other members of your club, grange, MOFGA or NOFA chapter, church or coop. Distribute catalogs to interested members as soon as you can. We'd be happy to send you additional catalogs or order forms if you need them. Choose someone to collate your members' orders into one combined order which you send to us. Use the volume discounts as a fundraiser or pass them on to those who do the work on the order. Schedule a work party after the seeds arrive to break down your group order into individual orders. For our pamphlet with more detailed "Information for Group Coordinators" send a SASE.



> "As always I am very pleased with your outfit. It's reassuring to read your thoughts about staying a 'cooperative' seed company."
> Tim McGarry, Westport, NY

Is FEDCO a Good Fit for You?

Many companies charge as much as they can get away with. At Fedco we charge as little as we can get by with. Unlike companies which boast of unlimited service (without telling you how much that costs), Fedco asks for your cooperation. In return for a few extra minutes of your time, we pass on significant savings.

We could be like other companies. We could alphabetize the catalog, mix all four divisions and supply one blank for all orders, take telephone and rush orders, ship within 24 hours, and spend gazillions on glossy catalogs and advertisements. We could hire people to sit in front of a VDT for eight hours straight or do nothing but answer the telephone all day. We could organize second and graveyard shifts at our warehouse and go 24 hours a day in February, March and April. But we choose not to because we care about the quality of our workplace and our work.

We want to please our customers, but Fedco is not for everyone. That's why we're straightforward about what we offer and what we don't. Use the chart below to compare Fedco with any other seed company.

	Fedco Seeds	Seed Company X
Price	Always among the lowest	
Volume Discounts	Generous	
Earlybird discount	Yes, 2% by Jan. 28	
Free shipping?	Yes	
Handling charge?	Fax orders $2, others none	
Minimum order?	Yes, $5	
Refunds?	Yes, cash, never credit slips	
Packet size	Standard or more generous	
Untreated?	100%	
Open-pollinated?	70% of vegetable varieties	
Year-round ordering?	No, seasonal	
Credit Cards?	Yes, Visa and MasterCard	
Fax Orders?	Yes	
Online orders?	Not yet	
Telephone orders?	No	
24 hour service?	No	
Color catalog?	No	
Sell your name?	Never	
Exchange mailing lists?	Occasionally, only with permission	

Organic Seed?

Some folks mistakenly believe that we sell only organic seed. In fact, only a few of our seed crops are organically grown, and these are clearly noted in the catalog. Commercial quantities of organic seed are just beginning to come into the market. For a while yet, supplies will be limited, and the cost to us about double that of conventionally grown seed. To gauge interest in organic seed, this year we are offering a choice of organic and conventionally grown seed for several popular varieties, and passing on some of the cost differential.

In anticipation of some form of National Organic Standards, we are listing as 'organic' only those seed crops which have been certified by an authorized agency. Some of our seed growers, although following accepted organic practices, have chosen for a variety of philosophic or economic reasons not to apply for certification. We have identified in the catalog where uncertified crops have been grown without herbicides, pesticides and chemical fertilizers.

Consistent with current organic certification standards throughout the states, **all of our seeds are untreated.**

Our Own Seed Crops

We devote many hundreds of hours annually to research. In Nikos Kavanya's extensive variety trials program, skilled staffers and customers evaluate hundreds of cultivars at multiple sites.

Some years ago we began cooperating with Maine seedspeople interested in growing commercial seed crops of varieties specially adapted to this climate, focusing on traditional regional favorites such as dried beans, and heirloom varieties not available from commercial channels. This program first bore fruit in 1991 when we successfully grew seed for 19 varieties. We have extended it to other states and abroad and now offer a diverse selection of ornamental and flour corns, melons, squash, gourds, lettuce, peppers, flowers and medicinal herbs as well as beans and tomatoes seldom found in other seed catalogs. Each summer in our trials we are continuing to identify outstanding heirloom varieties, selecting the best for seed multiplication, and making plans to introduce them in future catalogs. We will continue to do our part to ensure that the best heirlooms are reintroduced into commerce.

Nevertheless, like most other retail seed companies, we grow only a small percentage of the seed that we sell, instead purchasing quality seed grown in optimum climatic conditions by expert seedspeople in Idaho, Washington, Oregon, California and other western states, or imported from Japan, France, Holland, Denmark, Germany, Switzerland or Italy. In particular, many hybrid varieties come from a few dozen large wholesalers with sophisticated breeding programs and unrivalled expertise in their specialties. Whatever their geographic origin, all of our offerings have been tested in our trials program for high performance in our cold New England climate.

RESOURCES

Seed Saving Organizations

The Seed Savers Exchange, 3076 N Winn Rd, Decorah, IA 52101, founded by Kent and Diane Whealy, is a grassroots network of gardeners and plant collectors who maintain and distribute rare varieties of food crops. Their 1999 Yearbook listed 989 members who maintain a combined collection of over 11,500 different vegetable varieties. Over the past seven years the SSE has purchased the 170-acre Heritage Farm where they house their own collection of 18,000 varieties including 4100 tomatoes, 3500 beans, 1200 peppers, 950 peas and more. Annual membership is $30. **The Flower and Herb Exchange**, whose members maintain over 1000 varieties of heirloom herbs and flowers, is at the same address. Annual membership in FHE is $10.

The Scatterseed Project, Box 1167, Farmington, ME 04938, is a regional seed exchange for this area and curator for a substantial part of the SSE collection. They do not have a catalog; all varieties are available through SSE. Scatterseed maintains around 1060 varieties of peas and 650 of potatoes among its over 3000 plant varieties.

The Maine Seed Saving Network, PO Box 126, Penobscot, ME 04476, promotes and preserves the genetic diversity found in open-pollinated varieties and helps maintain public access to these varieties through active production and distribution of seeds and information about saving seeds. Annual membership is $10 for students/low income, $15 general.

Pioneer Valley Seed Savers, 888 Shelburne Falls Rd, Conway, MA 01341, (413) 369-4269 is a new organization planning workshops on seed saving and a seed swap for Jan 22, 2000, which they hope will become an annual event.

Butterbrooke Farm Seed Co-op, c/o Thomas Butterworth, 78 Barry Rd. Oxford, CT 06478-1598, is a seed savers cooperative in Connecticut which publishes a newsletter and has a seed exchange. Send a SASE for more information. Annual membership is $15.

Garden State Heirloom Seed Society, c/o Joe Cavanaugh, PO Box 15, Delaware, NJ 07833, is a seed savers organization in New Jersey with a seed exchange, a magazine and a catalog of over 1000 listings. Some members have marvelous tomato collections and they hold a tomato-tasting in September. Annual membership is $10.

Seeds of Diversity Canada, PO Box 36, Station Q, Toronto, ON M4T 2L7, Canada, (905) 623-0353, is a living gene bank seeking to preserve and enhance genetic diversity and sponsoring an annual seed exchange program. Annual membership is $25; $20 for fixed income.

Information on Genetic Engineering

RAFI, (Rural Advancement Foundation International) PO Box 670, Pittsboro, NC 27312 (919) 542-1396, www.rafi.org. International non-governmental organization on the forefront of ferreting out information on what multinationals and governments are up to concerning such GE issues as biopiracy, patenting life forms, and terminator technology.

Union of Concerned Scientists, 2 Brattle Sq, Cambridge, MA 02238, (617) 547-5552, www.ucsusa.org, is an alliance of citizens and scientists who work to research and evaluate the risks and benefits of biotechnology in agriculture and other topics in science and public safety. Their "What's Coming to Market" chart is often cited by other groups. Great links to government agencies for further research.

Campaign for Food Safety (formerly Pure Food Campaign), 860 Highway 61, Little Marais, MN 55614, (218) 226-4164, www.purefood.org. Public interest organization whose primary focus is safeguarding our food. Worldwide food news, updates on organic standards, listings for co-ops and CSAs.

NERAGE (Northeast Resistance Against Genetic Engineering) operates out of the Institute for Social Ecology, 1118 Maple Hill Rd., Plainfield, VT 05667, 802-454-8493, http://ise.rootmedia.org has links to local activists in VT, ME & NH.

The Campaign to Label GE Foods, www.thecampaign.org, has instant form letters to print and send to government officials urging them to label GE food. Click onto your state and each senator and representative is listed. Click onto the individual you want to contact and the letter is formatted with their name and address. Easy!

Genetic Engineering and Its Dangers, userwww.sfsu.edu/~rone/gedanger.htm, compiled by Dr. Ron Epstein at San Francisco State University has a wide range of good essays relating to GE. Good place to start your GE education. Includes a book list.

Mothers for Natural Law, PO Box 1177, Fairfield, IA 52526, (515) 472-2809, www.safe-food.org, operates a public awareness campaign on the dangers of GE foods. Lists what foods are likely to have GE content and what brands are GE-free.

Organic, Biodynamic & CSA Organizations

MOFGA (Maine Organic Farmers and Gardeners Association), PO Box 2176, Augusta, ME 04338, (207) 622-3118, www.mofga.org, works to promote sustainable agriculture through legislative and educational initiatives, annual sponsorship of the Common Ground Country Fair, publication of its quarterly newspaper, and maintenance of farm apprenticeship, journeyperson and certification programs. Maintains local chapters.

NOFA (Northeast Organic Farming Association) c/o Julie Rawson and Jack Kittredge, 411 Sheldon Rd, Barre, MA 01005, (978) 355-2853. For the rest of the Northeast what MOFGA is for Maine. Maintains state chapters in VT, NH, MA, RI, CT, NY and NJ (also serves PA). Sponsors educational conferences each summer and winter, and publishes a quarterly newspaper.

PASA (Pennsylvania Association for Sustainable Agriculture), PO Box 419, Millheim, PA 16854, (814) 349-9856, for Pennsylvania what MOFGA and NOFA are for their states. This year's conference is Feb. 4-5, "The Next Agricultural Revolution: Reclaiming the PASAbilities."

OEFFA (Ohio Ecological Food & Farm Association, PO Box 82234, Columbus, OH 43202, (614) 267-3663, oeffa@iwaynet.net, Ohio's organic organization.

The Bio-Dynamic Farming & Gardening Association, PO Box 29135, San Francisco, CA 94129, (888) 516-7797, www.biodynamics.com, sponsors annual conference on topics of interest to biodynamic growers, maintains a nationwide CSA directory, publishes a bimonthly journal and the annual *Stella Natura Calendar* (see **#6690** in our books section).

The Robyn Van En Center c/o Center for Sustainable Living, Wilson College, 1015 Philadelphia Ave, Chambersburg, PA 17201, (717) 264-4141 ext 3247 or fax (717) 264-1578, has information and materials on Community Supported Agriculture. Offers brochures, mailing lists and handbooks for modest fees. Provides videos and slide shows for attracting prospective members.

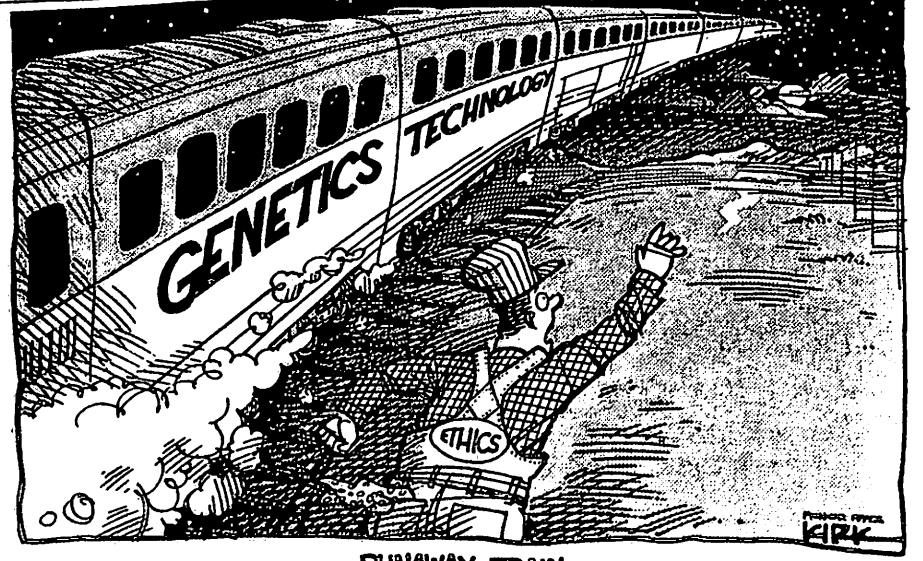
Annual membership rates for MOFGA and NOFA. You can join when you order; list names and addresses on a separate sheet, indicate new membership or renewal, add total on order form.

state	individual	family	supporting	other	
ME	25	35	60	15	student/elder
VT	25	35	75		
NH	25	35	100		
MA	30	40	100	20	low income
RI	25	35	55	15	student/senior
CT	35	35	100	20	student
NY	25	30	100	15	student/senior
NJ	35	50	100	15	low income

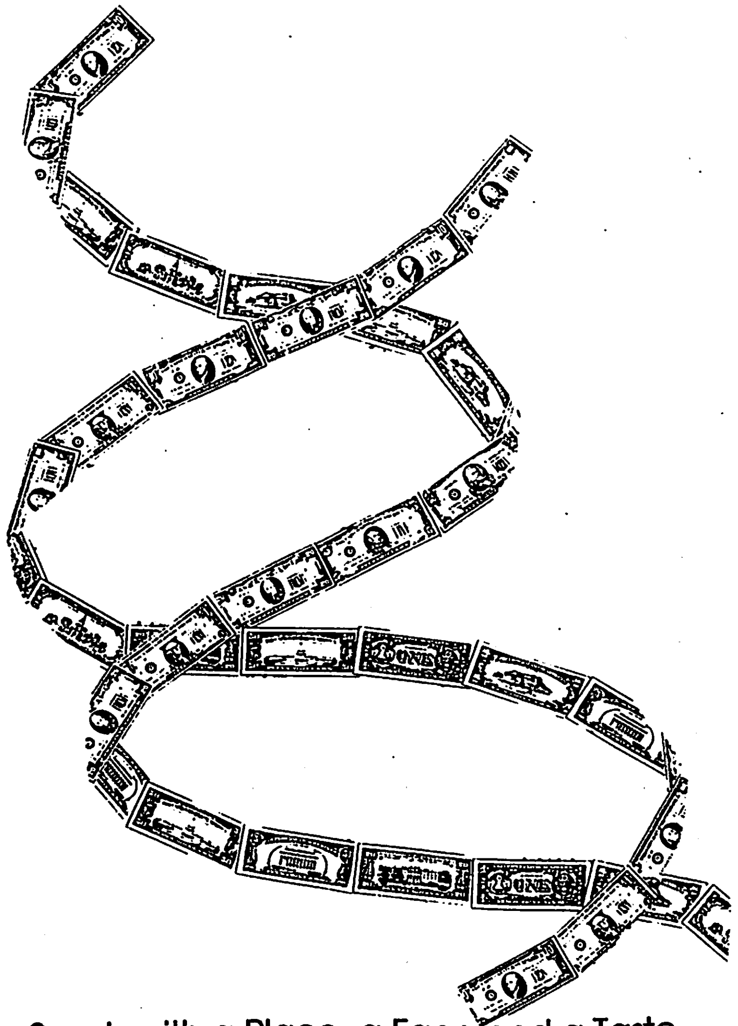
Useful Publications

Small Farmer's Journal, PO Box 1627, Sisters, OR 97759, (541) 549-2064. Published quarterly, $30 for a year's subscription, 2 years for $55, 3 for $75. The antithesis of those slick, superficial gardening magazines, this meaty publication is aimed at serious horse farmers but will appeal to anyone seeking iconoclastic political observations and in-depth treatments of rural economics, liking to tinker with machines or appreciating fine craftsmanship.

Growing for Market, PO Box 3747, Lawrence, KS 66046, (800) 307-8949, published monthly, year's subscription is $30. Here's where we turn for practical information about organic food and flower production for market, good coverage of CSA and other timely topics.



RUNAWAY TRAIN

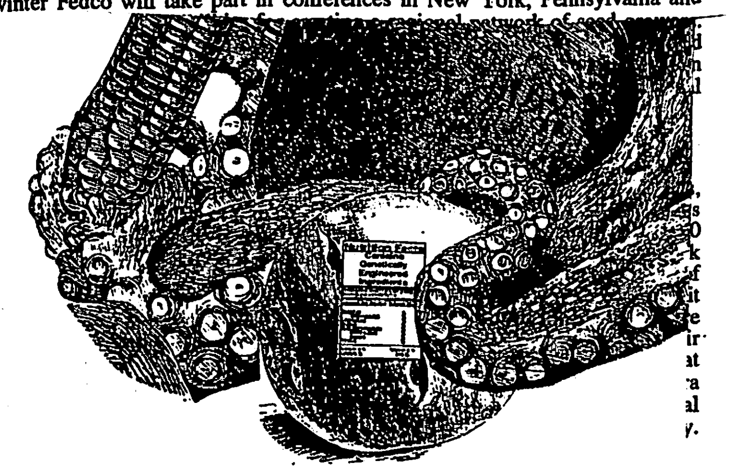


Seeds with a Place, a Face and a Taste

We are pleased to have helped revive interest in those all-but-forgotten regional varieties that graced the seed catalogs of the family-owned companies a century ago. We have witnessed a resurgence of demand for baking beans, flint corn, open-pollinated squash and melons and even non-hybrid sweet corn. Each year we are finding more varieties that we want to help bring back and you are buying larger and larger quantities of the ones you like. Our research and your demand have outstripped our ability to find seed growers, creating an increasing backlog of Fedco seed-growing projects. We believe seed production could offer a promising economic niche for some area farmers.

With the seed industry increasingly consolidated and controlled by a handful of multi-national conglomerates committed to risky strategies (see right-hand column and also books **#6506, 6561 and 6562**) in pursuit of the almighty dollar, our challenge is clear. A truly alternative food system based on sustainability begins with the seed. We will have such a system only if we regain control of our seed production. We have barely just begun to do that arduous, yet rewarding, work. We must step up the pace.

Russell Libby, MOFGA's Executive Director, likes to talk about food with a place, a face and a taste—grown and marketed sustainably and locally. This winter Fedco will take part in conferences in New York, Pennsylvania and



Update on the Seed Industry

The October announcement by Monsanto that they have decided to abandon plans to commercialize Terminator Technology represented a victory for the Rural Advancement Foundation International (RAFI, see page 6) whose effective publicity helped galvanize a worldwide firestorm of protest. (For a broader discussion of this technology designed to render seed-saving by farmers impossible by creating genetically altered varieties that produce sterile seed, see our 1999 catalog.)

But the struggle is far from over. The USDA and cottonseed company Delta & Pine Land (whose prospective buyout by Monsanto has been delayed by an antitrust investigation), joint patent holders of the Terminator, have made no such disavowals. USDA continues to defend the technology. (See page 8, "Your Tax Dollars at Work.") Research by RAFI has revealed that all of the major seed industry behemoths, including Monsanto, Novartis, AstraZeneca, DuPont, BASF, and Aventis, have similar patents in the works. The next generation of technologies will create packages which, induced by proprietary chemical activators, can control multiple factors such as acceleration or stunting of plant growth, reproductive viability, and disease or herbicide resistance. The aim of the gene giants is not just to discourage seed saving or replanting but to make farmers totally dependent on the seed company, and ultimately to control the entire food system from seed to table. Terminator is only the most visible and dramatic manifestation of the potential impact of genetic engineering on our lives.

Terminator (still years away from being ready for the marketplace) turned into a massive public-relations nightmare for the gene giants, catalyzing opposition to genetic engineering (GE). Direct actions against GE experiments have spread from India and Europe to the States, including Maine where a group called "Seeds of Resistance" took credit for chopping down a University of Maine experimental GE corn field in Old Town. More significantly, European opposition to genetically altered corn and soybeans has impacted markets to the extent that even the giant Archer Daniels Midland has been forced to segregate GE from non-GE crops, after insisting for years that legislation requiring labeling of GE foods was completely unworkable because segregating would be impossibly expensive. Market forces are likely to bring the geometric increase of GE crop acreage (from 2 million hectares in 1996 to almost 28 million in 1998) to a rude halt.

Research performed by Cornell University entomologists showing that pollen from corn plants genetically engineered to produce insecticidal *Bacillus thuringiensis* toxin can harm larvae of the monarch butterfly underscored the unforeseen risks in rushing these technologies to market without adequate prior testing.

Starting with an introspective article by Michael Pollan in the *New York Times Magazine* in October 1998 in which he shared his conundrum about whether to eat the GE NewLeaf potato (he didn't), the GE controversy has rapidly spread into mainstream media. In the next five years we are likely to see a pitched battle for the hearts and minds of Americans as polarized as those over the Vietnam War and abortion.

Meanwhile, consolidations in the seed industry by "life science" companies (as they like to call themselves) continue, with Dupont's $7.7 billion purchase of Pioneer Hi-Bred International and Hoechst's merger with Rhone-Poulenc to form Aventis, among the latest. The top five companies now control 75% of the global vegetable seed market. A landmark study by Dr. William Heffernan of the Dept. of Rural Sociology at the University of Missouri shows similar levels of concentration throughout the food industry, for example, the top four processors in each industry control 79% of the beef packing market, 62% of flour milling, 49% of broilers and 80% of soybean milling, with the same names appearing on many of the lists.

An increasing number of wonderful quirky small seed companies specializing in heirloom varieties continue to provide counterpoint to industry trends. Cooperative efforts among these alternative seedspeople are still in fledgling stages, but likely to accelerate in the next few years. Among these are the Farmer Cooperative Genome Project in Oregon and an initiative organized by biodynamic growers centered in New York State.

The New England Agricultural Society announces that its next Fair will be held at Portland, Maine, on the 7th to the 10th of October. All entries must be made two weeks before the exhibition. Notice of intention to enter live-stock must be sent to S. L. Boardmann, Augusta, Me., prior to August 18th. The Secretary of the Society is Col. Daniel Needham, of Groton, Mass. A liberal list of premiums is issued. No prizes are offered for trotting horses; but this whole subject is left with the trustees of the Maine State Agricultural Society. We earnestly commend to these gentlemen the perusal of the retiring address of President Failo, of the N. Y. State Society. The inducements offered by the Society in the form of prizes will settle the question whether or not there will be a concourse of professional gamblers, drunken and "lewd fellows of the baser sort" drawn together, as to a regular horse-race, or whether the exhibition will be one beneficial to the agriculture and the people of the State, and of New England. The scenes enacted at the fair at New Haven last year should be a warning.

From the American Agriculturist, June, 1869.

Fedco Does not Carry Genetically Engineered Seeds

At our 1996 Annual Meeting we voted unanimously not to knowingly offer for sale any transgenic variety because the new gene technologies pose unacceptable risks to the environment. In 1999 we affirmed and clarified that position and will follow the guidelines of the Organic Materials Review Institute (OMRI) which prohibits the use of genetically engineered organisms in organic crop production. OMRI uses the National Organic Standards Board (NOSB) definition of genetic engineering that specifically prohibits artificially induced techniques of recombinant DNA, cell fusion, micro- and macro-encapsulation, gene deletion and doubling, introducing a foreign gene and changing the position of genes. Our "Updates on the Seed Industry" both in this catalog and in our 1999 catalog, give further information about why we do not carry genetically engineered seeds. Along with several other seed companies, we have signed The Safe Seed Pledge.

THE SAFE SEED PLEDGE

Agriculture and seeds provide the basis on which our lives depend. We must protect this foundation as a safe and genetically stable source for future generations. For the benefit of all farmers, gardeners and consumers who want an alternative, *we pledge that we do not knowingly buy or sell genetically engineered seeds or plants*. The mechanical transfer of genetic material outside of natural reproductive methods and between genera, families or kingdoms, poses great biological risks as well as economic, political and cultural threats. We feel that genetically engineered varieties have been insufficiently tested prior to public release. More research and testing are necessary to further assess the potential risks of genetically engineered seeds. Further, we wish to support agricultural progress that leads to healthier soils, genetically diverse agricultural ecosystems and ultimately people and communities.

Your Tax Dollars at Work

Following are excerpts from the U.S. Department of Agriculture's website at www.ars.usda.gov/whatsnew.htm on "Why USDA's Technology Protection System (aka "Terminator") Benefits Agriculture": "U.S. Patent 5,723,765 entitled 'Control of Plant Gene Expression' ...covers technology referred to as a plant 'Technology Protection System' (TPS). TPS uses a genetic engineering approach to prevent unwanted germination of plant seeds...Hybrid seeds found in corn, sunflower, sorghum and other crops provide a conventional genetic protection system that allows seed companies to protect their investment in developing and marketing new varieties. But other crops produce seed that can be saved and replanted in the next growing season. Because of this seed-saving practice, companies are often reluctant to make research investments in many crops because they cannot recoup their multiyear investment in developing improved varieties through sales in one year. TPS would protect investments made in breeding or genetically engineering these crops...by reducing potential sales losses from unauthorized reproduction and sale of seed...TPS will be used initially with self-pollinated crops such as cotton, soybeans and wheat." A few questions to ponder: "unwanted germination of plant seeds" unwanted by whom? "unauthorized reproduction and sale of seed" unauthorized by whom? Is government research for the benefit of the public sector or the private sector? Don't want your government to be in the business of supporting behemoth corporations at the public expense? Don't want it in the business of preventing farmers from saving or reselling their own seed? Write The Honorable Dan Glickman, Secretary, US Department of Agriculture, 200-A Whitten Bldg., 1400 Independence Ave., SW, Washington, DC 20250 or fax him at (202) 720-2166 and share a few of your thoughts with him!!

$ Fedco Supports Sustainable Agriculture $

At our 1999 Annual Meeting, the staff voted to allocate $4,000 to our Educational Subsidy Fund for the next year. We donate this money to individuals and groups working on projects that further goals of cooperation, preserve and extend our genetic diversity, and educate consumers, gardeners and farmers about the benefits of sustainable agriculture. Recently we funded a workshop on organic orcharding. We help underwrite the Scatterseed Project, the Maine Seed Saving Network, NOFA's *Natural Farmer* newspaper, MOFGA's new fairgrounds and education center, the annual Vermont NOFA winter conference and periodic Northeast CSA conferences. We invite individuals and groups with educational or research projects to write for an application.

How You Can Get More Involved

Tell us how our varieties performed for you. Did you especially like something? Was something disappointing? Let us know. Tell us why. Please include the specific variety and lot number. The more details you furnish, the more we can learn.

Suggest new varieties for us to carry. Be these heirlooms which have been rediscovered, new varieties from modern breeding programs, or old standbys we've overlooked, your suggestions always interest us. The more specific your opinion, the more useful to us. And please tell us whose seed you've been using.

Join our network of trial gardeners. We are interested only in experienced successful gardeners with good record-keeping skills. We discourage organic purists because often trial samples have been fungicide-treated by the supplier. For 2000 we especially need trialers of broccoli, brussels sprouts, cauliflower, supersweet corn, eggplant, turnip, radish and daikon radish.

Send us seed of an heirloom variety which you think has commercial potential. We will grow it out to see if we agree. Our Cracoviensis Lettuce, Nero di Tuscana kale and Blue Beech paste tomato all resulted from this type of collaboration. Vegetable varieties must ripen in our short growing season, with outstanding taste and/or appearance. We especially welcome samples of neglected herbs or flowers such as single hollyhocks and old-fashioned scented sweet peas.

Send us your old seed catalogs or old classic references. We collect seed catalogs before 1970 and old garden books, especially those with good black-and-white drawings. They enhance our catalog with historical references and illustrations.

TICS
TECH
ETHICS
KIRK

RUNAWAY TRAIN

New Seed Varieties for 2000

324 Jackson Wonder: Heirloom lima from Georgia!
477 True Red Cranberry: Could also be a Thanksgiving treat!
536 For Heaven's Sake: Corn's ripe, Heaven can wait!
606 Bravado: No bluster, just tender sweet flavor!
692 Hopi Blue: Grown for eight centuries in Arizona mesas!
696 Kalidia: A kalidia-scope of colored kernels!
958 Early Moonbeam: Bite into a sliver of this yellow moon!
1234 Cross Country: In the running for best pickling cuke!
1328 General Lee: At his best with Stonewall #324!
1650 Golden Delicious: More orange than apple!
1772 Jarrahdale: Best Australian export since *Picnic at Hanging Rock!*
1777 Nutty Delica: Not a nutty selection!
1820 Wee-B-Little: We be quick! We find something nice to pick!
1880 Long Island Cheese: Say cheese and smile!
1963 Apple: No teacher would refuse this apple!
2097 Bolero: A carrot to make you dance with joy!
2186 Bull's Blood: These bulls can't be beet!
2266 Munchener Bier: Something good with a cold one!
2282 Shinden Risoh: The best daikon in our trial!
2322 Lange Jan: Its roots go deep!
2372 White Egg: Add this to your winter storage nest egg!
2468 Cherokee Red: Not many tears on this trail!
2470 Candy: No Mars this year, but at least we have Candy!
2477 Borretana Cippollini: With not much toil, a good onion to boil!
2480 Torque: Our onion selection gets a new twist!
2512 Olympia: No Snowe job, just the best fall spinach!
2555 Giant Winter: Doesn't get old when the weather turns cold!
2838 Blushed Icy Oak Gene Pool: Cool flavor warmly received!
2968 Crisp Mint Romaine: Flavor worth a mint!
3055 Wrinkled Crinkled Crumpled Cress: Such a great delight to fress!
3122 Minutina: Keep your salad mix up to the minute!
3139 Southern Giant: In the valley of the southern green giant ho ho ho!
3260 Shuko: Tender baby pac choi!
3336 Mammoth Red Rock: Mammoth really rocks!
3440 Benihana: Flashy flavor, not flashy chefs!
3450 Barbados: Probably grows better in Maine than the Caribbean!
3456 Goliath x Peacock F3: A giant bird with flavor!
3480 Oliver: Combine with #2480 and go to the Dickens!
3582 Redbor: Nothing boring about this red kale!
3628 Giant Red x Ventura: A body slam for taste!
3686 Cloud 9: Cumulus yields, stratus(pheric) flavor!
3860 Chilipeno: Hot to be chile and hot at the same time!
3881 Matchbox: Pepper for pyros!
3888 Fish: No fins, no gills, many variegated thrills!
4063 Rose de Berne: This rose is pink, sweet and yummy!
4678 Cumin-scented Perilla: A leaf of spice so very nice!
4962 Baikal Skullcap: These roots will cool and calm you!
5078 Flashback: A good visual high without drugs!
5256 Goldfinger: Lovely! Our word is our bond!
5318 Pink Carnation Poppy: Pretty flowers are the opiate of the masses?
5459 Imperialis Sweet Sultan: Not Turkish, but a real delight!
5580 Java Orange: A real pickup without caffeine!
5618 Sweet Cream: Closest thing to a white marigold!
5624 Kniola's Purple: Already blooming when knee-high!
6018 New England Aster: Susan Belding concocts a wild mix!
6022 Panorama Red Shades: Colors sure to please, attract butterflies & bees!
6038 Red Catchfly: Not an outfielder for the Cincinnati 9!
6266 Queen of the Meadow: Tall and stately Joe Pye Weed!
6276 Silkweed: The silk is in the pods!

PLUS more than 20 old favorites have returned, including Hutterite, Burgundy Delight, Golden Gopher, Ponca, Green Hokkaido, Bennie's Red, Hopi Red, Grandma Mary's, Rosemary, Qis Red Globe and Chinese Lantern.

PLUS we've instituted a parallel line of organic seed for a few items including Waltham Butternut, Early Wonder, Danvers and Cilantro.

Dropped Varieties for 2000

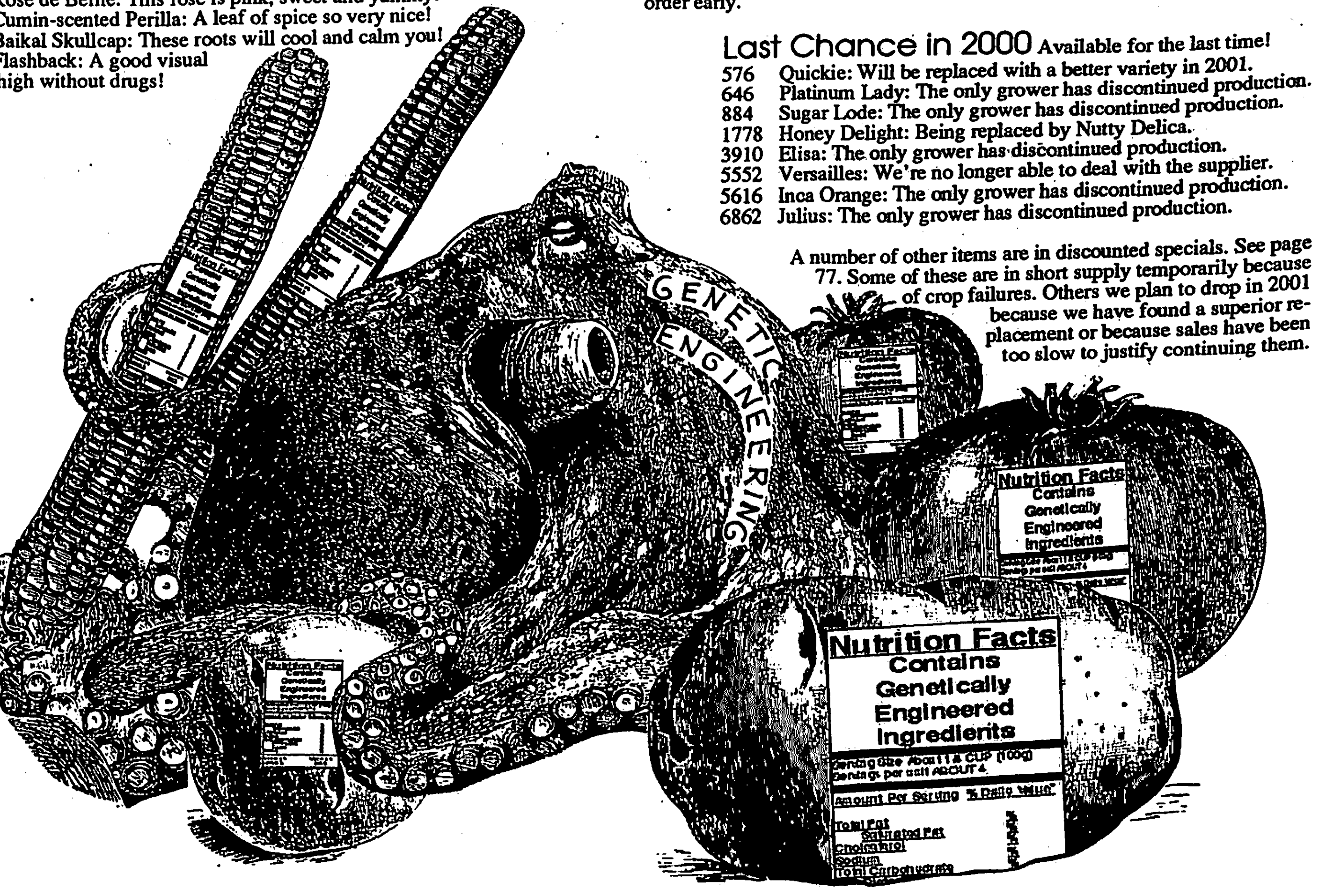
480 Packers: Temporarily replaced by #324 Jackson Wonder.
516 Ashworth: Crop failure. We hope to have back in 2001.
636 Luther Hill: Crop failure. We hope to have back in 2001.
724 Knight: Checkmated by staff disagreements. We prefer other varieties.
1358 Suyo Long: No untreated seed available.
2282 Omny: Replaced by #2282 Shinden Risoh.
2306 Andover: Crop failure. We hope to have back in 2001.
2322 Scorzonera: Replaced by #2322 Lange Jan.
2464 Redman: Replaced by #2478 Bennie's Red.
2560 Residane: Replaced by #2512 Olympia.
2780 Batavia Blonde #6: No longer in commercial production.
3012 Tricolor Amaranth: Crop failure. We hope to have back in 2001.
3138 Green Wave: Replaced by #3139 Southern Giant.
3234 Tokyo Beau: No longer in commercial production.
3334 Laso: Crop failure. We hope to have back in 2001.
3452 Green Valiant: No longer in commercial production.
3462 Arcadia: No untreated seed available. We hope to have back in 2001.
3480 Prince Marvel: Replaced by #3480 Oliver.
4170 Ruby Gold: Crop failure. We expect to have back in 2001.
4197 Hog Heart: Crop failure. We expect to have back in 2001.
4242 Firebird: No longer in commercial production.
5050 Black Ball: Blackballed by the purchasing committee? No, short crop.
5238 Lemondrop: Replaced by #5236 Troubadour.
5363 Signum Blue: Crop failure. We hope to have back in 2001.
5424 Sunbeam Sunflower: Crop failure.
5526 Apricot Brandy: Dropped because of poor sales.
6224 Musk Mallow: To be alternated on & off our list.

A number of other items are in short supply this year. Check your catalog and order early.

Last Chance in 2000 Available for the last time!

576 Quickie: Will be replaced with a better variety in 2001.
646 Platinum Lady: The only grower has discontinued production.
884 Sugar Lode: The only grower has discontinued production.
1778 Honey Delight: Being replaced by Nutty Delica.
3910 Elisa: The only grower has discontinued production.
5552 Versailles: We're no longer able to deal with the supplier.
5616 Inca Orange: The only grower has discontinued production.
6862 Julius: The only grower has discontinued production.

A number of other items are in discounted specials. See page 77. Some of these are in short supply temporarily because of crop failures. Others we plan to drop in 2001 because we have found a superior replacement or because sales have been too slow to justify continuing them.



Variety Descriptions by CR Lawn - As indicated in the descriptions, some of our selections are more suitable for home gardeners than commercial growers. Farming/gardening is more an art than a science, with many factors, especially your microclimate, soil type and cultural practices, significantly affecting performance. Success in our trials is not a guarantee of success in your plot. We advise market growers to trial unfamiliar varieties on a small scale before making a full commitment.

As a guide to growers we've included information about disease tolerance/resistance provided by our suppliers. We are not plant pathologists and cannot guarantee that tolerant or resistant cultivars will never be harmed. Actual performance in the field depends on climate, weather and cultural practices which we cannot control. In particular, the absence of information on the older varieties does not mean they will keel over at the first sign of stress. While conscious breeding for disease tolerance/resistance began relatively recently, time-honored heirloom cultivars have proven adaptable to a variety of conditions. Following are abbreviations which appear after some variety descriptions. A number after the abbreviation indicates which race of pathogen.

ALS	Angular Leaf Spot	LMV	Lettuce Mosaic Virus
ALTS	Alternaria Leaf Spot	N	Nematodes
ANTH	Anthracnose	NCLB	Northern Corn Leaf Blight
ASC	Alternaria Stem Canker	NY 15	NY 15 Mosaic Virus
BR	Black Rot	PEMV	Pea Enation Mosaic Virus
BS	Bacterial Speck	PLR	Pea Leaf Roll
BSR	Bacterial Soft Rot	PM	Powdery Mildew
CBMV	Common Bean Mosaic Virus	PR	Pink rot
CLS	Cercospora Leaf Spot	PS	Peronospora
CMV	Cucumber Mosaic Virus	PY	Potato Y virus
CTV	Curly Top Virus	S	Semphylium
DM	Downy Mildew	SEPT	Septoria Leaf Spot
F	Fusarium	ST	Stewart's Wilt
FBR	Fusarium Basal Rot	TEV	Tobacco Etch Virus
FY	Fusarium Yellows	TMV	Tobacco Mosaic Virus
GLS	Grey Leaf Spot	V	Verticillium
GSB	Gummy Stem Blight	W	Common Wilt race 1
LCV	Leaf Curl Virus	YBM	Yellow Bean Mosaic

The initials PVP after a variety indicate that the variety is patent protected. Unauthorized propagation of the seed is prohibited. The use of PVP in the catalog is for informational purposes only and in no way constitutes an endorsement by Fedco of plant patenting.

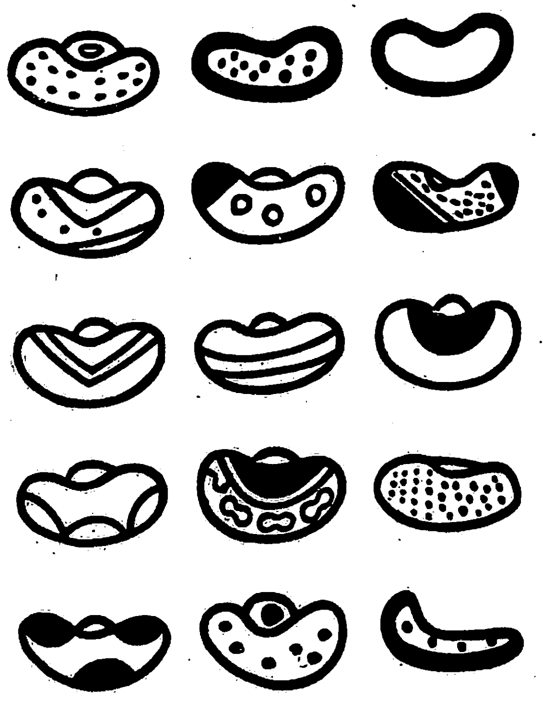
AAS=All-America Selection.

Supplier Codes - This year for your information we are introducing supplier codes for each variety. Varieties with more than one supplier may have two or more codes. The listings are according to our best information at press time. Occasionally we have to change suppliers for a variety later in the season. We choose varieties based solely on their merits without much regard to supplier preferences. We do not offer genetically engineered varieties, although we purchase from corporations engaged in genetic engineering research. Rather than boycotting such suppliers, we prefer to allow you to make your own choices about whom you are supporting and which varieties are best for your garden or farm. Codes are as follows:

① Small seed farmers including Fedco staff and trialers.
② Family-owned companies or cooperatives, domestic and foreign.
③ Domestic and foreign corporations not part of a larger conglomerate.
④ Multinationals not to our knowledge engaged in genetic engineering.
⑤ Multinationals who are engaged in genetic engineering.

Prices - For vegetable seed, sizes and prices are at the end of each variety description. Prices for L=50lb bags of peas and beans are not on the long grid order form. See instructions for bulk orders of seed on p. 3.

Seed Counts - Seeds per size A packet for vegetables are approximate. They are intended as guides not guarantees. Information under specific varieties is based on actual counts from recent packets. Seed size and count often vary from one year's crop to the next; expect past counts to provide only a rough approximation for 2000.



BEANS *Phaseolus vulgaris*

2 oz. packet sows 25 ft; 1 lb., 200 ft. Tender, will not survive frost. Plant 3-4 seeds/ft. in rows 24-30" apart. Pick frequently to keep beans producing, but stay out of the patch in wet weather to prevent spread of fungal diseases. Dry weather the past two summers has helped stimulate bountiful harvests. Several times we got 3 lb. from one pole in a single picking. We list seed color because white-seeded beans usually don't germinate as well as dark-seeded. All beans are open-pollinated.

BUSH GREEN BEANS

204 Provider (50 days) Tied with Contender for earliest producer in our 1997 trial. For highest early yields, even under adverse conditions, and rich beany taste, old reliable Provider can't be beat. Noted for its concentrated sets of round 5-5½" pods. Our best-selling bean for 21 consecutive years and last year the top seller in our entire catalog with more than 3,200 packets and a Fedco record 2,859 pounds. Released by USDA in 1965. Purple seed. Resistant to CBMV, NY 15, PM, DM. ③ A=2oz, 80¢, ~180 seeds, B=½lb, $2.50, C=1lb; $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

208 Black Valentine (52 days) When we trialed 25 bush bean varieties in 1997, including many of the old favorites, Black Valentine was a clear winner for heavy early yields and outstanding flavor. Although many 19th century varieties bore the name "Valentine," this one was introduced by Peter Henderson & Co. in 1897, damned with faint praise by U.P. Hedrick in *The Vegetables of New York* in 1931, yet, almost alone among heirloom bush bean varieties, retains popularity among home gardeners and canners to this day. And deservedly so, for we did not find it stringy, or the black seeds overly prominent in the pods, as charged by Hedrick. We did find it well adapted to our cool temperatures, early, loaded with sweet succulent round beans in the first picking. 6" pods with tendency to curve. Later pickings yield only moderately, but it did come back after drought this summer to set a late crop. Black kidney-shaped seed. ③ A=2oz, 80¢, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

210 Strike (53 days) Market growers will strike it rich with heavy yields of medium-green 5½" slender smooth round pods. Strike sets the standard for earliness, appearance, and ease of picking. Had a pleasing sweet beany taste in the trials. White seed. Resistant to NY 15 and CBMV. ⑤ A=2oz, 80¢, ~205 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $75.00, L=50lb, $135.00.

214 Greencrop (53 days) An early flat-podded Romano type especially adapted to the North. Pods can grow up to 8" long while still retaining good quality. 1957 AAS. White seed. Tolerant to CBMV. ③ A=2oz, 80¢, ~115 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

224 Royal Burgundy (55 days) Less foliage than Royalty Purple Pod, which it replaced. Straight 5" meaty purple pods turn bright green after two minutes of blanching. Grows well even in cold conditions. Light brown seed. Resistant to CBMV, NY 15, PM. ③ A=2oz, 80¢, ~175 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

230 Jade (56 days) PVP. Introduced in 1996, became an instant best-seller. A favorite with both market and home gardeners, Jade offers great yields of tasty, 5-7" straight slender round dark green pods. Holding quality is Jade's byword. Pods retain their rich color longer than others, both on the vine and after picking. Jade keeps producing quality pods until late in the season, long after others have quit. Jade's strong upright bush habit holds pods above the ground, reducing curling and tip rot. Pods are tender, yet maintain that traditional bean flavor. White seed. Resistant to CBMV, NY 15, CTV, tolerant to rust. *Caution: Jade is a fussier germinator than Royal Burgundy, Provider or Golden Rocky. Be sure your soil temperature is at least 60° and irrigate during dry spells.* ⑤ A=2oz, 80¢,~190 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $75.00, L=50lb, $130.00.

238 Bush Blue Lake 274 (57 days) Long considered to set the taste standard for home garden bush bean varieties. Pods avg. 6", fill slowly with tender, plump beans. Very high yields of yummy green beans. White seed. Resistant to CBMV, NY 15. ③ A=2oz, 80¢, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

246 Roma II (59 days) True flat bush Romano bean offers heavy yields of fleshy medium-green 5" pods which are slow to develop seeds. White seed. Resistant to CBMV, NY15. ③⑤ A=2oz, 80¢, ~200 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $75.00, L=50lb, $135.00.

BUSH WAX BEANS

262 Golden Rocky (54 days) Also known as Beurre de Rocquencourt, an heirloom from France. The best-tasting wax bean. Germinates well in cool, wet conditions and retains vigor even under cool night temperatures. Noteworthy for slender juicy pods that melt in your mouth. Not beany. Pods grow to 6". Black seed. ③ A=2oz, 80¢, ~245 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

271 Buttercrisp (57 days) Sweeter and more tender than Golden Butterwax. 5½" rounded slender bright yellow pods fatten slowly. Market growers will like its good yields and clean, attractive appearance. Home gardeners will enjoy its distinctive flavor. Resistant to CTV, rust and CBMV. ③ A=2oz, 80¢, ~245 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

277 Dragon Langerie (57 days) Also known as Dragon's Tongue, this heirloom from the Netherlands is as tasty as it is attractive. Its compact stocky bushes bear abundant creamy yellow beans mottled with purple tiger stripes. A prolific producer of flat 6" pods that are crisp, stringless and amazingly juicy when eaten fresh. Cook or market promptly after picking; turns rubbery and loses snap when stored. Not recommended for freezing. Seed purplish brown with blue stripes. ③ A=2oz, 80¢, ~120 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

POLE BEANS

2 oz. packet sows 20 poles, 6 per pole. We've used tipis for staking for years. Will Bonsall suggests letting them climb sunflower stalks (give the sunflowers a 2-week head start). Pole beans generally have much more flavor than bush beans. If you're saving seed, a good yield is 1 lb. per pole. See also **#406-415.**

286 Kentucky Wonder (68 days) Also known as Old Homestead. This standard climbing variety, a favorite since the mid-1800s, was given its present name by the eminent Marblehead, MA, seedsman James J.H. Gregory in 1877. Offered by Olds Seed Co. in their 1915 catalog for 10¢ a packet and 20¢ a pound. The nutty flavor makes them outstanding for freezing. Pick regularly to maintain quality and production. Not good when fat. Brown seeds. ③ A=2oz, 80¢, ~125 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

292 Rattlesnake (70 days) To think that not so long ago we discontinued this heirloom. It has since become one of our most popular beans. Called Preacher Bean in parts of the South, Rattlesnake produces a good harvest of round 6-7" pods with purple streakings said to resemble the markings of a rattlesnake. Paul Hauser, from Lincoln University, PA, calls it "without question the best-tasting bean we grow. People line up at our market to buy 'Snake' beans." Excellent for freezing. Tan seed with dark stripes. ③ A=2oz, 80¢, ~135 seeds; B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

MISCELLANEOUS BEANS

298 Windsor Fava (75 days) *Vicia faba* Bush type. Favas are also known as broad beans. Heirloom listed by Fearing Burr in *Field and Vegetable Gardens of America* in 1863. Unlike other beans, favas should be planted as soon as the ground can be worked. They tolerate frost, but do not thrive in hot weather. Sow the large seeds 3-4" apart. Harvest when the light green beans in the 6" glossy pods reach the green shell stage. Parboil one minute, drain and cool, slip from skins, and cook about 5-10 minutes more. Brown seed. ③ A=2oz, 80¢, ~35 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

310 Taylor Dwarf Horticultural Shell (68 days) Also known as Speckled Bays, this heirloom bush shell bean predates 1800. Early producers of cream-colored pods splashed with carmine red. Shell right after picking, boil until tender (30-45 minutes) and mix with olive oil, chopped garlic and parsley for a late summer treat. Buff seed with red stripes. ③ A=2oz, 80¢, ~120 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00, E=10lb, $22.00, K=25lb, $50.00, L=50lb, $90.00.

318 Scarlet Runner (70 days) *Phaseolus coccineus* Climbing beans often grown as ornamentals for their brilliant scarlet blossoms which attract hummingbirds. Need trellises, fences, or poles; will grow to 10-12'. Can be eaten both as snap or shell (95 days) beans. Beautifully mottled purple and black seeds. Heirloom variety grown as early as 1750 by colonists and in 1791 by Thomas Jefferson. ③ A=2oz, 80¢, ~46 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $75.00, L=50lb, $135.00.

324 Jackson Wonder Lima (103 days) *P. lunatus* As our summers get longer, hotter and drier, lima beans become a better and better bet. We've temporarily replaced Packers (crop failure) with this drought-tolerant heirloom variety which originated with Atlanta, GA, farmer Thomas Jackson and was introduced in 1888 by Philadelphia seed house David Landreth & Sons. It features about 3 seeds per curved pod, grey in the shell stage and drying to buff-colored with lovely purple and black mottling. The succulence of baby limas fresh from your garden will banish any lingering memories of those oversized canned limas you may have had foisted on you in your youth. Ripens just after Packers with a more spreading habit. Hedrick in 1931 called it "the hardiest of all bush limas, very productive." NEW! ③ A=2oz, 80¢, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $15.00. *Not available in larger sizes.*

BUSH DRY BEANS

Inspired by Herbert Birch's extraordinary 1998 trial, I grew out 31 kinds of dry beans in 1999 and had great success with most. Many of these are old Maine or New England heirlooms not currently in commerce. Our staff will be tasting baked beans all winter, and we hope to bring back several of the best ones in the next few years.

328 Limelight (85 days) Not recommended as a green bean, but makes an excellent shelly (around 60 days) or dry bean. The compact plants set light green seeds which are similar in shape, color and taste to baby limas, except sweeter, with a buttery texture. They are very early for a dry bean, much easier to grow than limas in our climate. Developed in Alberta, Canada. Light green to white seeds. ① A=2oz, 80¢, ~102 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $75.00.

334 Marfax (86 days) Heirloom resembling Swedish Brown Bean, but earlier and higher yielding. Richly flavored brown baking bean very adaptable to our cool climate. Seed produced in Maine. Golden tan seed. ① A=2oz, 80¢, ~148 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00, L=50lb, $110.00.

342 Jacob's Cattle (88 days) Popular New England heirloom variety which derives its name from the biblical story of Jacob and the spotted cattle. Its dark red speckles on white background are said to look like the cattle's markings. If harvested earlier the kidney-shaped beans make superb shellies. Seed produced in Maine. ① A=2oz, 80¢, ~95 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00, L=50lb, $110.00.

350 Soldier (89 days) Large drought-tolerant white kidney bean with red-brown soldier-like figure on its eye. A New England favorite for generations. Seed grown in Maine. ① A=2oz, 80¢, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00, L=50lb, $110.00.

358 Monos Negros (90 days) The name means "black monkeys" in Spanish. Trialer Marina Davis brought this small heirloom black bean to our attention. Plant economy and extreme earliness are its primary assets. Plants neither sprawl, twine nor get moldy. Monos ripens much earlier than Black Turtle, but with not quite as rich flavor. Seed originally collected by Will Bonsall from Salvadoran immigrants in Vassalboro, ME. Seed organically grown by Alison LaCourse. ① A=2oz, 80¢, ~194 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00. *Not available in larger sizes.*

368 Maine Yellow Eye (92 days) A very old variety, with many different strains. One of Maine's most popular dried beans. Plump oval medium-sized beans, cream with yellow eye. Seed grown in Maine. ① A=2oz, 80¢, ~115 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00, L=50lb, $110.00.

376 Red Kidney (102 days) Early-maturing variety of light red kidney baking bean developed at Cornell University. Large beans mature at least a week earlier than similar types. Seed grown in Maine. ① A=2oz, 80¢, ~105 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00, L=50lb, $110.00.

384 Black Turtle (104 days) The original Black Turtle, dating back before 1806, was offered by Grant M. Thorburn, one of the first US seedsmen, in 1832. This strain, an improved upright bush version of the heirloom, was more recently developed by Cornell University. Small black beans with rich spicy flavor popular for soup. Seed grown in Maine. ① A=2oz, 80¢, ~305 seeds, B=½lb, $2.50, C=1lb, $5.00, D=5lb, $18.00, E=10lb, $30.00, K=25lb, $60.00.

BEAN THERE

BUSH BEANS

402 Benchmark (54 days) Larry Siegel, our Massachusetts bean trialer, and I both selected Benchmark as the best in his 1998 trial. None of the others came close to matching its tender sweet juicy succulence. Expect heavy early concentrated yields of mostly straight 6" round medium-green pods on medium-large upright plants. The price of the seed matches the quality of the variety. PVP applied for. White seed. Resistant to NY 15 and CBMV. Tolerant to CTV. ⑤ A=½oz, 60¢, ~50 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

POLE BEANS

406 Northeaster Pole (55 days) Also known as Kwintus. The seed comes from Holland. Earliest and best-tasting pole bean we've tried. Ripens almost two weeks earlier than Kentucky Wonder. Vigorous climbers with outstanding flavor which improves with blanching. Somewhat flattened pods don't get tough even when big. In recent years we've tried several dozen pole beans and have yet to find one that comes close to matching the early quality of Northeaster. Expensive seed worth the extra cost. Northeaster loses vigor after several pickings. Follow with a later variety if you desire pole beans until fall frost. White seed. ⑤ A=½oz, 60¢, ~28 seeds, B=2oz, $1.50, C=½lb, $6.00, D=1lb, $12.00, E=5lb, $60.00. *Not available in size K, order size E.*

415 Fortex Pole (60 days) The best French pole bean, far superior to Emerité in pod length, tenderness and vigor in our trials. Although the medium green pods may be harvested at 6-7" for gourmet filet beans, they retain good quality and sweetness without strings even at 10". Jumbo and asparagus beans, the only longer beans we know, are not nearly as tender. Vines stood up to repeated pickings in our 1998 trial, achieving impressive yields. Expensive seed but worth every penny. Walnut brown seed. ⑤ A=½oz, 60¢, B=2oz, $2.00, C=½lb, $8.00, D=1lb, $15.00. *Not available in larger sizes.*

BUSH HARICOTS VERTS

Haricot vert is French for green bean. This type has fancier quality than American beans and should command a premium in markets. For optimal flavor, pick pods while they are still thin before they develop strings.

432 Maxibel (61 days) Heavy producer of uniform dark green fancy stringless 6-8" pods of exceptional length and ramrod straightness. Voted best-tasting *haricot vert* in our 1995 trial. For maximum tenderness and most succulent flavor pick early and often. A gourmet market specialty. Set a Fedco sales record for *haricots verts* as a new item in 1997. Speckled brown seed. ⑤ A=½oz, 60¢, ~95 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $40.00, K=10lb, $70.00.

SOUP, SHELL & DRY BEANS

All bush types except where noted.

444 Vermont Cranberry (70 days) This is the same strain of the heirloom once offered by Vermont Bean Seed. The pods contain 5 to 6 speckled cranberry-colored shell beans. Reliable, hardy and easy to shell. A New England tradition since before 1800. For dry beans, add three weeks to maturity date. Seed grown in Maine. *Caution: viney habit has not been bred out of this cultivar.* ① A=½oz, 60¢, ~32 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

448 Cannellini (80 days) Also known as Cannelone, predates 1900. ½" white kidney shell bean. The clear winner of the four varieties in our staff taste test, drawing such comments as "really scrumptious—where's the tortillas?" "creamy delicious," and "my favorite." The mild-tasting beans become tender when cooked, perfect for minestrone and other soups or stews. May also be grown as dry beans; add 20 days to maturity. Good performer in cool weather. ① A=½oz, 60¢, ~25 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

452 King of the Early (85 days) Some years back longtime seed-saving customer Linwood Ware sent us a sample of this beautiful mottled red baking bean. King's ability to ripen early, its capacity to swell enormously when soaked, its utter dependability through hot summers and cool, and its hearty flavor make it a real winner. We've found King of the Early easy to grow and heavy yielding year after year. Seed grown in Maine. ① A=½oz, 60¢, ~25 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

462 Hutterite (88 days) We welcome the return of these delicious heirloom soup beans. The Hutterites, a communal Anabaptist sect, brought them from Austria across the Atlantic when they settled in the New World in the 1750s. In a little under an hour of cooking, the greenish-tan plump beans with a charcoal ring around the hilum turn into delicious creamy chowder. 2-3' bushes are good yielders. Seed organically grown in Maine. BACK! ① A=½oz, 60¢, ~25 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

470 Calypso (90 days) In 1994 Calypso generated more interest than any other bean introduction in years. And no wonder. Our first glimpse of Calypso at the 1992 Common Ground Fair Exhibition Hall won us over. At once stark and stunning, its markings are uncannily similar to the Chinese yin/yang symbol. This black and white dry bean even includes a contrasting dot. Though not as heavy a yielder as King of the Early, Calypso dependably produces 4-5 beans per pod, with a texture similar to Yellow Eye. Seed grown in Maine. ① A=½oz, 60¢, ~28 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

476 Agate Pinto (92 days) A bush pinto with medium-sized mottled beans of rich spicy flavor. Rogers Bros. succeeded in breeding out the usual sprawling runners, a breakthrough in Pinto development which makes Agate easy to harvest. Seed grown organically in Maine by staffer Alison LaCourse. ① A=½oz, 60¢, ~33 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00, K=10lb, $40.00.

477 True Red Cranberry Pole (95 days) This once-rare heirloom won plaudits for its rich full-bodied flavor at our staff taste test. It probably owes its continued existence to collector John Withee (see our 1999 catalog) who finally obtained it from a Mr. Taylor of Steep Falls, ME, after an 11-year search. The plump round maroon seeds look just like Thanksgiving cranberries, unlike the bush cranberry types which are usually oval and speckled. True Cranberry is one of our oldest varieties, possibly sown by Native Americans. Withee's search was inspired by a description of "Red Cranberry" in a 1700s gardening encyclopedia. A moderate climber to 6', Cranberry is unfazed by short cool growing seasons. Seed organically grown. Short crop. NEW! ① A=½oz, 60¢. *Not available in larger sizes.*

478 Bumblebee (95 days) Big fat blocky bean, white with a maroon "bee" with stinger around hilum. Really swells up when soaked, almost like a lima. May be served as shell beans (subtract 20 days from maturity date), add butter or olive oil, salt and pepper. Allowed to dry, make an excellent easy-to-digest baking bean, cooking up with a nice smooth texture and flavor. One of the beans in John Withee's collection; we have traced this heirloom to the Garland, ME, area. ① A=½oz, 60¢, ~16 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00, E=5lb, $20.00. *Not available in size K, order size E.*

479 Red Chili (100 days) May be same variety as Mexican Red. Mahogany red bean black around the eye, oval but flat, looks like a kidney but smaller. Its earthy taste makes an ideal base for chili. Grainy texture makes it unsuitable for baking. Easy to digest. The vining plants yield very well. Gene found the original seeds in a health food store, liked the beans so much he saved the seeds for a growout. Seed organically grown in Maine. ① *Seed in short supply; order early.* A=½oz, 60¢, ~40 seeds, B=2oz, $1.50, C=½lb, $5.00, D=1lb, $8.00. *Not available in larger sizes.*

SOYBEANS *Glycine max*

Called by Nancy O'Connor, author of *Rolling Prairie Cookbook*, "the Japanese version of popcorn," green vegetable soybeans are soaring in popularity. Known in Japan as *edamame* (ed-ah-*mah*-may), they are enjoyed as a nutritious snack, sometimes boiled and salted like beer nuts. They should be sowed around the same time as sweet corn and harvested when most of the pods have expanded but are still green and show no yellowing. Boil the pods for 5-7 minutes, chill quickly and they will shell easily. Refrigerate beans that you don't consume immediately. *Edamame* are rich in vitamins C and E, calcium, protein and dietary fiber. Fresh market growers can cut off plants near the base, remove the leaves and bunch the plants into 1 lb units, thus eliminating the need to pick each pod individually. Although we have our largest crop yet, almost 30 pounds, we still can't keep up with the demand, which more than doubled last year and will probably increase again. We had another variety in the trials which was more productive than Shirofumi, taller and a little later ripening. It showed great promise. We will continue to work with this exciting crop to bring you the best varieties we can find.

488 Shirofumi Soybean (90 days) Shirofumi is the best edible green soybean we have ever tasted. Our stock seed came from Tom Vigue, who has done considerable work with this crop. Like Tohya, Shirofumi grows vigorous thigh-high vines with early concentrated sets of delicious light green pods, many with three beans. It is about two days later than Tohya, but ripens by late August, even in our climate. Beans are decidedly tastier than Tohya's. Green soys are an excellent substitute for limas in short-season areas. Our seed was grown without pesticides, herbicides or chemical fertilizer by Donna Dyrek at Loon Song Farm. Soybean seed is easy to save; expect about 1 lb. per 7 row feet. ① A=½oz, 60¢. *Not available in larger sizes.*

AMAIZING CORN *Zea mays*

2 oz packet sows 50 ft, 1 pound sows 400 ft. CAUTION: Untreated sweet corn seed will not germinate in cold wet soil. Please be patient and wait till soil warms to at least 60° before sowing, or start seedlings indoors and transplant at 3-6" stage before taproots take off. Tender, will not survive frost. Heavy nitrogen requirements. Rows 3' apart, 4 seeds/ft. Thin to 1' apart. When corn is knee-high, a side-dressing of azomite or alfalfa meal can really stimulate growth. Should be planted in blocks of at least 4 rows to ensure adequate pollination, essential for good tip fill.

If you have trouble with crows pulling up seedlings, use Bird-Scaring Balloons (see **#9351**) or cover sowings with floating row covers (**#9121-9134**). Remove covers at 3-6" stage to avoid plant abrasion. A few drops of mineral oil applied to the silks can substantially reduce earworm damage. Although we know of no sure defense against critters, interplanting with pumpkins may improve the odds.

Seed catalogs in the 1800s featured "Indian Corn," decorative multi-colored ears with soft starchy kernels easily ground into flour or with flinty kernels often used to make corn meal and grits (**#682-699**); dent corn with indented kernels eaten fresh or roasted in the milk stage or used to make flour, corn meal, grits and cereal; field corn for animal forage and silage; and sugar corn, forerunner of today's sweet corn. Sweet corn is a relatively recent phenomenon, mostly developed after 1850. As sweet corn became the first crop to be hybridized, most of the open-pollinated varieties disappeared from catalogs in the thirties, forties and fifties. We are trying to get some back in our catalog, but are struggling to find commercial supplies (even the venerable Golden Bantam has thus far eluded us) or growers able to meet the demanding challenges of seed production.

Most of our recent introductions have been homozygous sugary enhanced crosses (five from the superb breeding program at Mesa Maize). Trialers Donna Dyrek (Loon Song Farm) and I (Shooting Star Farm) have found sugary enhanced corn to be especially suitable to our climate, with good cool-soil tolerance and a near-perfect blend of sugars and corn flavor. All SE sweet corn traces back to a single inbred developed in the 1960s in Illinois by Dr. Dusty Rhodes, ILL677a.

Be sure to isolate supersweet corns by at least 25' (100' for large plantings) to avoid tough, starchy kernels. Supersweet seeds are shrunken so that there are more seeds per pound (3000) than normal corn (2500).

The May 1999 issue of the *American Vegetable Grower* featured an article on growing baby corn in which **#540** Bodacious was recommended as one of the best varieties. (**#663** Japanese Hulless Pop Corn was also bred for this purpose). If baby corn is your primary crop, space plants within rows just 2-4" apart. As a secondary crop employ normal spacing and use the lowers ears when they are 2-4" long, 1-3 days after the silks first appear.

YELLOW SWEET CORN

508 Spring Treat (71 days) The choice of early corn connoisseurs, Spring Treat has been our most popular sweet corn since its introduction in 1995. We've tasted a lot of new earlies in recent years, but none have zinged our taste buds like this yellow SE hybrid. Showing good cold soil emergence, Spring Treat ripens around the time of Sugar Buns, but with longer ears that are easier to pick. The real clincher is its rich corny taste that we hadn't enjoyed since Intrepid. Not as sweet as Sugar Buns, but better eating quality, ear length and appearance than any other early corn. ② A=2oz, $1.20, ~280 seeds, B=½lb, $4.00, C=1lb, $8.00, D=5lb, $36.00, E=10lb, $70.00.

516 Ashworth (72 days) *Regret crop failure; not available this year. We hope to have back in 2001.*

524 Sugar Buns (74 days) Yellow sugary enhanced hybrid from Crookham with melt-in-your-mouth tenderness. About as sweet as our palates like, but not cloying like the supersweets. Sugar Buns does not have as good cold soil emergence as other early corns; please don't rush it. ② A=2oz, $1.20, ~405 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $60.00.

536 For Heaven's Sake (77 days) F-1 hybrid. You'll feel like you're in heaven when you bite into one of these tender scrumptious 8" yellow ears. Unlike other sugary enhanced sweet corns with such outstanding eating quality, For Heaven's Sake was not bred to ripen all at once. Instead, it matures over about a week, meeting the needs of home gardeners and small-scale direct marketers who don't want all their corn at once. Excellent tip-fill makes an attractive package. NEW! ⑤ A=2oz, $1.20, ~405 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

540 Bodacious (77 day) Crookham's sugary enhanced hybrid has exceptionally sweet corny tender yellow kernels that taste as good as its name! 8" ears have been outstanding in our trials. Resistant to ST. ② A=2oz, $1.20, ~270 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

546 Kandy Plus (78 days) F-1 hybrid. Kandy Plus grows the most attractive ears of corn we've ever seen. Only Silver Queen can come close to matching its perfect appearance. Its 8½" cylindrical ears usually fill all the way to the tips. It doesn't disappoint on flavor, either. "Kandy" says all you need to know about its sweetness. "Plus" is the corny quality it delivers on top of the sweetness. Grow Kandy Plus for a classic midseason yellow homozygous sugary enhanced treat. Be aware that ears are really fat when ripe; don't pick too soon. Resistant to common rust. Tolerant to ST and NCLB. ⑤ A=2oz, $1.20, ~380 seeds, B=½lb, $4.00, C=1lb, $8.00, D=5lb, $36.00, E=10lb, $70.00.

556 Tuxedo (80 days) F-1 sugary enhanced hybrid. Dress may be an over-rated quality in human society, but when it comes to commercial sweet corn varieties, dress is more than just a pretty face. The well-dressed sweet corn has good husk protection to keep those pesky earworms out! Tuxedo lives up to its name. When other varieties were infested with earworms in 1994, Tuxedo had none, even when we left it on the stalks past peak maturity. Its attributes are not confined to the surface. It offers a rich sweet tender corny taste which is the equal of any midseason yellow, and handsome 8" ears with 16 rows of delicious kernels that will melt in your mouth. Tuxedo can germinate at cool temperatures and withstand a fair amount of stress. I haven't worn one since my high school prom, but I'd want this one for my farmstand! Tolerant to ST, rust and smut. ② A=2oz, $1.20, ~355 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $60.00.

560 Incredible (85 days) Crookham's superior late-midseason sugary enhanced hybrid was a full tassel-length ahead of the competition at the 1996 Loon Song Farm trial, where its handsome 8" tip-filled yellow ears were just scrumptious. Incredible is not just sweet; it really delivers a deep corn taste. Good husk protection and tolerance to rust and ST. ② A=2oz, $1.20, ~515 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

564 Kandy Korn (89 days) Attractive deep purple husks and excellent holding quality make this hybrid yellow corn a real winner at roadside stands. One of the first sugary enhanced varieties, Kandy Korn has stood the test of time, and continues to enjoy well-deserved popularity. Tolerant to ST, common rust. ⑤ A=2oz, $1.20, ~235 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

Why we stop selling seeds at the end of March

Many people wonder why we don't sell seeds year round. The reasons are fourfold: 1)We need all our warehouse space and people energy in April to fill and ship potato and tree orders with live plant materials that need to get in the ground quickly. 2) Compressing our shipping season into peak ordering time and closing during the slow months creates economies of scale which hold costs and prices down. 3) Some of us return to our farms and fields in April to begin our invaluable hands-on work with plants. We incorporate the knowledge gained working outdoors into our variety selections and catalog descriptions. 4) Time away from order fulfillment gives us a chance to reflect upon the successes and failures of the past season. We return in the fall with our spirits rejuvenated and our brains revitalized, ready to improve our operations. Just as all growing things have their seasons, so, too does our cooperative business. By honoring those cycles we create balance in our lives and our work.

SWEET CORN SELECTIONS AT A GLANCE

variety	item #	days	color	type*	avg height	ear length	# rows
Spring Treat	508	71	yellow	se-se	72"	7-8"	14
Sugar Buns	524	74	yellow	se-se	76"	6-7"	14
For Heaven's Sake	536	77	yellow	se-se	84"	8"	16-18
Bodacious	540	77	yellow	se-se	87"	8"	18
Kandy Plus	546	78	yellow	se-se	84"	8.5"	16-20
Tuxedo	556	80	yellow	se-se	90"	8-9"	16
Incredible	560	85	yellow	se-se	90"	8"	18
Kandy Korn	564	89	yellow	se	102"	8"	16
Quickie	578	71	bicolor	ns	52"	7"	12
Seneca Appaloosa	580	73	bicolor	sh2	66"	8"	16
Double Gem	584	76	bicolor	se-se	75"	8"	16-18
Lancelot	602	82	bicolor	se-se	84"	7-8"	16-18
Bravado	606	83	bicolor	se-sh2	72"	8"	18
Burgundy Delight	610	84	bicolor	ns	84"	7-8"	12-14
Spring Snow	626	73	white	se-se	66"	7-8"	12-16
Platinum Lady	646	83	white	se	84"	8.5"	14
Silver Queen	658	96	white	ns	102"	8"	14-16

*genetic type
op = open-pollinated
ns = normal sugary
se = heterozygous sugary enhanced
se-se = homozygous sugary enhanced
sh2 = supersweet

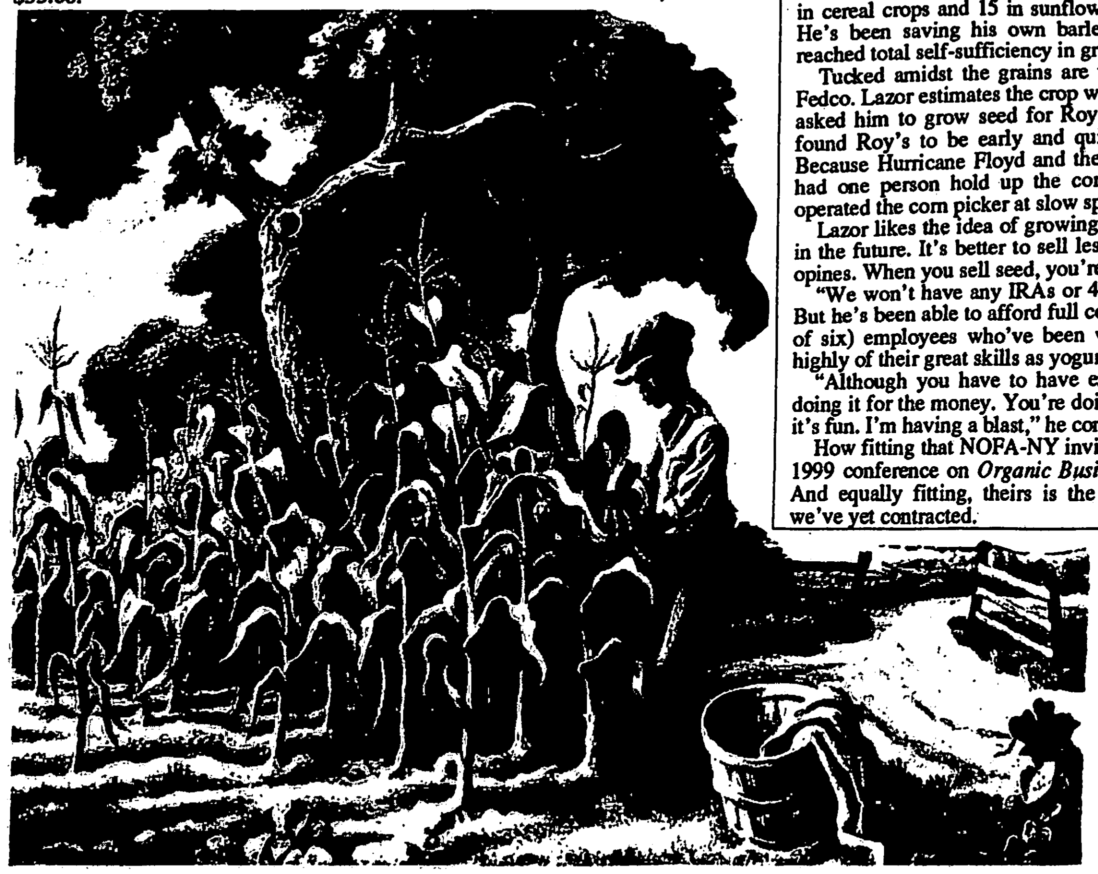
Note: Adjacent plantings of corns of different color kernels will result in some cross-pollination. 8-10 rows' distance is sufficient to maintain purity.

BICOLOR SWEET CORN

576 Quickie (71 days) Early bicolor hybrid. Ripens with Sugar & Gold, but displays more uniform high quality, longer ears, and 12 rows of kernels instead of 10. We will replace Quickie with a better early bicolor next year. ② A=2oz, $1.20, ~310 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

580 Seneca Appaloosa (73 days) F-1 hybrid supersweet. You may have noted our reluctance to jump on the supersweet bandwagon. The early supersweets had a cloying sweetness without much corn flavor, and a devil of a time germinating in our cold soils without fungicide treatment. The breeders of Appaloosa overcame those faults to produce an early bicolor with better cold soil emergence, admirable seedling vigor, decent yields and premium eating quality. Growers will love its refined appearance, too. The 8" ears are filled to the tips with 16 rows of beautiful bicolor kernels packaged in tight dark-green husks. ⑤ A=2oz, $2.00,~420 seeds, B=½lb, $8.00, C=1lb, $13.00, D=5lb, $60.00. *Not available in size E, order size D.*

584 Double Gem (76 days) A classy bicolor sugary enhanced hybrid for the all-important second-early slot, Double Gem's blocky 8" ears fill well to the tip for a lot of good eating. Rarely have we encountered such sweetness and tenderness in this early a corn. Good cold soil emergence. ② A=2oz, $1.20, ~355 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.



602 Lancelot (82 days) We took notice when Loon Song Farm trialers rated this midseason bicolor sugary enhanced hybrid as better than Burgundy Delight in 1995. Lancelot has a lot going for it besides its sweet, tender kernels. It snaps easily, is very drought tolerant, and shows good tip fill. Best-tasting of the 16 varieties in my 1996 trial. ② A=2oz, $1.20, ~375 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

606 Bravado (83 days) F-1 hybrid. Wow! 8" of bicolor bliss in every delectable ear. Bravado and For Heaven's Sake were the first two varieties we tasted at our annual corn feast at Loon Song Farm. As we licked our lips, we wondered "Is it just the hot season or are these varieties this hot?" We got our answer from the rest of the test. Bravado is this hot, delivering melt-in-your mouth sweetness and substance, too. Later I discovered that these qualities come from a synergistic cross between supersweet and sugary enhanced parents. These plump 18-row ears are going to be no help in curing my sugary corn addiction. Must be isolated from supersweet varieties. NEW! ② A=2oz, $1.20, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

610 Burgundy Delight (84 days) We are thrilled that Hart has returned Burgundy Delight to commercial production. Bicolor corn just doesn't come any better than Burgundy! Year after year it is at or near the top of the taste tests. Occasionally one comes along that we think tastes better for a year, but we always come back to Burgundy in the end. In conditions of high fertility its tall stalks often bear two good 7-8" ears with handsome purple blushes on their husks. Burgundy holds prime condition in the field longer than almost any other variety. Limited supply of seed this year; order early. ② A=2oz, $1.20, ~375 seeds, B=½lb, $4.00, C=1lb, $8.00, D=5lb, $36.00. *Not available in larger sizes.* BACK!

Jack Lazor

Jack and Anne Lazor are well-known for running Butterworks Farm, the oldest organic yogurt dairy in New England. In cold Westfield, VT, they had already endured a 5" snowstorm when I talked to Jack in October.

Beginning as homesteaders in 1976 with one cow and old-fashioned machinery, the Lazors currently milk 40-43 head. They started making yogurt on a kitchen stove in 1979 and marketing it door-to-door to neighbors. They have built their yogurt business to a half million dollars per year, selling directly to 40 stores in Vermont plus Northeast Coops and United Natural Foods. Three years ago they made the unusual decision to stop expanding their business. "We've stuck to our values and haven't sold our souls. We've had to tell people 'no' sometimes. We don't go out and oversell." Jack considers himself lucky. Yogurt is worth $75-$85 per hundredweight compared to $20-$22 for organic milk.

Lazor is not well-known as a seedsman, but he has a passion for farm crops. "The yogurt business supports everything. It allows me to be a bit of an experiment station on my own. I'm noted for growing weird crops, like flax, that nobody else wants to try." Lazor has 80 acres in corn, 80 in soy; 60 in cereal crops and 15 in sunflowers (he dreams of pressing his own oils). He's been saving his own barley, oats and wheat seeds for years, and reached total self-sufficiency in grain production six or seven years ago.

Tucked amidst the grains are two acres of Roy's Calais Flint corn for Fedco. Lazor estimates the crop will exceed 600 pounds. When Tom Stearns asked him to grow seed for Roy's, Lazor thought it would be fun. Lazor found Roy's to be early and quite yieldy, but hard to pick by machine. Because Hurricane Floyd and the early snow partially lodged the crop, he had one person hold up the corn plants with a pitchfork while another operated the corn picker at slow speed.

Lazor likes the idea of growing organic farm seeds and hopes to do more in the future. It's better to sell less of it and sell it as seed than as feed, he opines. When you sell seed, you're helping other people get started, too.

"We won't have any IRAs or 401Ks when we're all done," he concedes. But he's been able to afford full coverage health insurance for the three (out of six) employees who've been with Butterworks the longest. He speaks highly of their great skills as yogurt maker, machinery fixer and plant man.

"Although you have to have enough money to keep going, you're not doing it for the money. You're doing it because it's what you believe in and it's fun. I'm having a blast," he concludes.

How fitting that NOFA-NY invited the Lazors to give the keynote at their 1999 conference on *Organic Business: Can it be Ecological and Ethical?* And equally fitting, theirs is the largest seed crop (other than potatoes) we've yet contracted.

WHITE SWEET CORN

626 Spring Snow (73 days) Sugary enhanced hybrid. At last an early white sweet corn with a real corny flavor! No longer will white corn lovers have to wait for Platinum Lady. Now Snow will give you a great start on the season until Lady is ready. Expect 7½" ears of excellent quality for early in the season. Tolerant to ST, resists lodging. ② A=2oz, $1.20, ~290 seeds, B=½lb, $4.00, C=1lb, $8.00, D=5lb, $36.00, E=10lb, $70.00.

636 Luther Hill (82 days) *Crop failure; not available this year. We hope to have back in 2001.*

646 Platinum Lady (83 days) White F-1 hybrid. Yes, we still have seed for Platinum Lady, arguably the most attractive as well as the most tasty of all sweet corns. Since the grower has discontinued production, this is probably your last chance to enjoy Lady's perfect balance between corny and sugary, its sparkling sweet tender kernels and its decorative purple leaves. Roast a few ears with some new potatoes, that's good eating! 94% germination on held-over seed. *Seed in short supply; order early.* ② A=2oz, $1.20, ~255 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

658 Silver Queen (96 days) White hybrid which has long set the standard for late-maturing sweet corn. Large handsome ears, with glossy white creamy sweet kernels that fill to the very tips. Although risky in short-season areas, it ripens for us most years a few days before Common Ground Fair in late September, sneaking in just ahead of our first killing frost. I can't think of a better way to end the corn season. *Caution: germinates poorly in cold soil.* Tolerant to NCLB, ST. ⑤ A=2oz, $1.20, ~255 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

POPCORN See also #5940.

663 Japanese Hulless Popcorn (72 days) Use this open-pollinated variety to raise miniature corn for Chinese cuisine. Harvest the fingerlike baby ears around five days after silks appear. They are delicious in hors d'oeuvres and stir-fries and make excellent pickles. Or allow to grow to full size for popcorn which will take 110 days. The 5' plants each bear three to six 4" ears with white kernels. ③ A=2oz, $1.20, ~630 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

666 Strawberry (95 days) Open-pollinated heirloom. Highly decorative maroon 2" ears which taper slightly to the tip. Colorful kernels pop into a white popcorn. ② A=2oz, $1.20, ~800 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

678 Robust White Popcorn (95 days) F-1 hybrid. Also known as 21-82W. It pops! And doesn't stop. This early white hulless popcorn has the same great eating quality as White Cloud—crisp and tender, light and flaky—but with a better yield of larger kernels on 7" ears. The 6' plants have the stalk strength to survive September storms intact. ② A=2oz, $1.20, ~580 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

DRY FIELD CORN

682 Roy's Calais Flint (85 days) We admire Tom Stearns' work at High Mowing Farm in the cold Northeast Kingdom of Vermont. A young seedsman selling exclusively homegrown organic seed, Stearns collaborated with us on this introduction. As Roy's caught on and became the most popular variety in his catalog, Stearns began getting requests for larger quantities of seed that he felt we might be better equipped to fill. Stearns calls Roy's "the most exciting heirloom that I've ever been handed. Incredibly early and able to grow well under cold conditions, it has made mature and dry ears in as few as 80 days." It has performed well in our trials for two years in a row. Most of the 7-9" ears are golden yellow but a minority are a beautiful dark maroon. The true strain has 8 rows of kernels, but you will find occasional 10 and 12 row ears which you should rogue out if you are saving seed. Make great Johnny Cakes or cornmeal. Preserved in the same cold valley in Calais, VT, for well over 100 years and rescued from near-extinction by Stearns. Seed organically grown in the Kingdom by Jack Lazor. ① A=2oz, $1.20, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

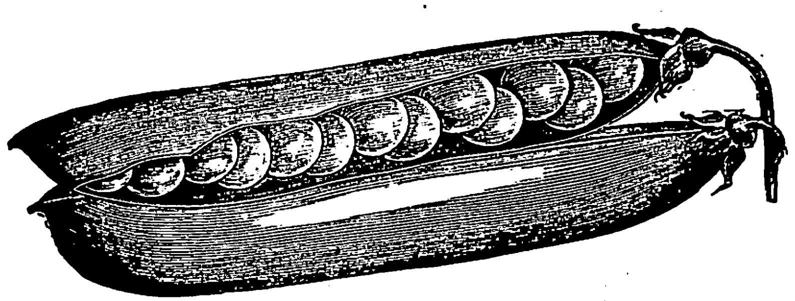
688 Mandan Bride (98 days) A colorful flour corn believed to have originated with the Mandan tribe of Minnesota and North Dakota. Easy-to-grind starchy kernels make flavorful corn meal or grits. 5-6' plants produce many-hued 7-8" decorative ears. Demand is increasing rapidly so we have a larger seed crop. Seed grown in Maine without pesticides, herbicides or chemical fertilizers. ① A=2oz, $1.20, ~225 seeds, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

Concerned about Y2K?

We are operating under the assumption of business as usual in Y2K. This means we will not change our normal shipping schedule which calls for first seed order shipments to go out in January. Please do not call to ask for earlier shipment. If you must have seeds before the end of 1999 please choose a different supplier. The infamous January 1998 ice storm left us well-prepared to deal with temporary emergencies. We have a generator if we should lose power. Our computers are mostly Macintoshes which don't have a problem with the date 2000. We are confident we will be able to provide you with good service in the year 2000.

692 Hopi Blue Flour (100 days) Precursors of this strain have been raised continuously for 800 years on the Hopi mesas of northern Arizona. Used by the Hopis to make ceremonial *piki* bread. Tall 9' plants produce large 8-10" ears with beautiful deep kernels easy to grind into flour. Very drought-tolerant, with a long taproot. Seed grown in New England. NEW! ② A=2oz, $1.20, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.

696 Kalidia Ornamental Flint (110 days) Open-pollinated. The day we evaluated Kalidia was the day I found my marbles again. If you played marbles as a kid (and it was a passion in rural Vermont in the early fifties when I was growing up) you'll remember that the agates with the delicate patterns were the most prized of all. You'll treasure the exquisite markings on the kernels as well as the colors which include a patterned buff I've never seen on a corn before. Developed by Peter Kopcinski, this extraordinary ornamental corn is big in every way, from its gorgeous thick 8-10" ears to its imposing 9' stalks. By serendipity, I planted it alongside Navajo Blue in the trials and got some sublime crossed color and pattern combinations. You could try the same with Hopi Blue. *Caution: may mature a little too late for northernmost areas.* NEW! ③ A=2oz, $1.20, B=½lb, $4.00, C=1lb, $7.00, D=5lb, $30.00, E=10lb, $55.00.



PEAS *Pisum sativum*

2 oz packet sows 30 ft, 1 lb. sows 240 ft. Primitive forms of pea seed have been found dating back to the Swiss Lake dwellers, perhaps 5,000 years ago. Street vendors in ancient Athens served hot pea soup to passers-by, ancient Romans attending the theatre ate fried peas in lieu of popcorn. Young plants very hardy but frost stops production at the blossom or pod stage. Like cool, moist weather; dislike heat. Sow as early as ground can be worked for best yields. All peas produce more when staked; varieties over 2½' *must* be supported. Plant 8-10 seeds/ft. in rows 3' apart (5' if very tall varieties). Early morning picking retards spread of powdery mildew disease and ensures best flavor. If you love peas as much as we do, you may want to try for a fall crop. Timing is crucial, as peas ripen slowly in the cool of September, and frost will halt production. We recommend 1st week July planting for fall crop in central Maine. Warmer areas try mid-July. Novartis controls most of the world's pea seed production. Recently, we have not been happy with their selection criteria. Most of the new AFILA (Lacy Lady type foliage) and heavily dwarfed varieties they are emphasizing don't deliver enough flavor to be worth growing. We are seeking a serious Western grower for several superior older varieties that are no longer commercially available to help renew the popularity of this deserving vegetable. All peas are open-pollinated.

SHELL PEAS

710 Coral (53 days) PVP. Makes harvesting peas before July 4th a cinch, even in cold pockets. The best quality early pea we've yet found, and an instant best-seller in 1994. In 1998 unusually delightful April weather enabled us to start sowing peas on April 12. By June 22 Coral was producing copiously and by July 1 had delivered most of its respectable yield. In 1999 we got heavy pickings on June 26, 28 and July 1 from a Patriots Day planting. Robert L. Botteron Jr. of Grabill, IN, reported freezing 180 pints from sowing 10 lb. of seed. Short vines barely surpass 2' and tend to set earliest pods low. 6.66 peas per pod in 1998, 5.80 in 1999. Resists F1, PLR. ⑤ A=2oz, 80¢, ~235 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

WANTED

SEED GROWERS

IF THIS LOOKS LIKE YOU

CALL NIKOS

AT FEDCO 207 873-7333

732 Early Frosty (60 days) Outstanding quality and sweetness, probably the preferred variety for freezing. At its best before the pods are completely filled. Tricky to pick, but one of the easiest to shell. Holds quality for a long time after picking. Vines grow up to 3'. Susceptible to powdery mildew; performs best in early sowings. A dependable yielder every year, Frosty was spectacular during 1992, producing more than 42 pounds per 100 row feet and almost as good last summer with 40.5 pounds per 100 row feet. 6.64 peas per pod in 1998. Resistant to W. ③⑤ A=2oz, 80¢, ~140 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

740 Patriot (62 days) Crop failure. *Still unavailable.* Along with Mayfair and Miragreen, one of the varieties for which we are seeking a grower.

748 Little Marvel (63 days) Old-timey home garden favorite bears tightly packed nearly round pods on 18" vines. Very sweet. Surprising yields for such a dwarf plant. Introduced to the US in 1908. ③ A=2oz, 80¢, ~250 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

754 Top Pod (64 days) PVP. Has heat resistance to match Wando's with higher yields. Bore at Shooting Star Farm throughout the warm August of 1993. PM resistant. 2½' tall, with good flavor for a summer pea. ⑤ A=2oz, 80¢, ~210 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

760 Green Arrow (65 days) Sets the standard for mid-season varieties. Long pods with up to 10 peas per pod on vines up to 3'. Very heavy yielding, was especially vigorous in 1999, producing better than 37 pounds per 100 row feet. Easy to pick because pods tend to set in pairs at the top. Our most popular pea, one of two to top a half ton in sales in 1999. (Coral was the other.) Tolerant to F, DM, CTV, W. ③ A=2oz, 80¢, ~270 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

772 Miragreen (68 days) *We regret Miragreen is no longer in commercial production. Not available in 2000.* We are multiplying seed stocks in hope of offering again in 2001.

780 Lincoln (70 days) Apparently originated in England and first offered in America by J. M. Thorburn in 1908, the year before the first Lincoln penny. This old favorite rates as the sweetest pea and the best for fresh garden grazing. As one customer wrote, "My 4-year-old stole most of them from my harvest basket before it made it to the house." Vines up to 3' bear 3-3½" slender curved pods in mid-season. Consistently 6-8 peas per pod; 7.14 average in 1999. Susceptible to powdery mildew. Tolerant to W. ③ A=2oz, 80¢, ~210 seeds, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

788 Mayfair (72 days) Alas, no longer in commerce, although for combination of taste and yield, perhaps the best pea variety ever developed. Is there a Western pea grower who'd like to take this on? *Not available this season.*

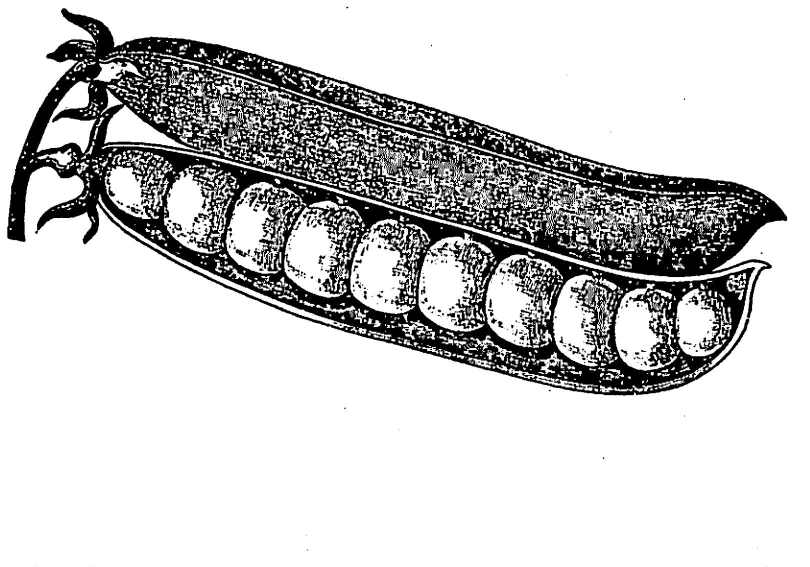
792 Alderman or Tall Telephone (75 days) New All-America winner Mr. Big got the hype this year, but utterly failed in the trial garden to supplant this old-time favorite as the #1 tall pea. Alderman topped Big in peas per pod, 7.65-6.94, in yield 38-28 lb. per 100 row feet, and in flavor. Alderman boasts vines of 5-6' or more under very fertile conditions, needs strong staking and frequent picking. Introduced by noted pea breeder Thomas Laxton around 1891 and first sold by Burpee in 1901. Alderman and Tall Telephone are considered synonymous today, although U.P. Hedrick makes a distinction between the two in his 1928 classic *Peas of New York*. He says both derived from Telegraph, a variety originated in 1877. Resistant to W. ③ A=2oz, 80¢, B=½lb, $2.50, C=1lb, $4.00, D=5lb, $14.00, E=10lb, $22.00, K=25lb, $45.00, L=50lb, $85.00.

SOUP PEAS

796 Blue Pod Capucijners (85 days) *Regret crop failure. Not available this year. We hope to have back in 2001.*

INOCULANT

798 Legume Inoculant for peas and beans, size B treats 8#, size C treats 60#. On our seed order sheet by popular demand. Can also be ordered from the Supplies section. Other inoculants are available only in the Supplies section (p. 92). B=$2.50, C=$4.00.



EDIBLE PODDED PEAS

Culture same as shell peas. Snow peas should be harvested before pods fill out. Snap peas taste sweetest when completely filled. A common mistake is to pick snaps too soon. Young snap plants may be harvested for greens, good in mesclun or lightly cooked.

SNOW PEAS

808 Dwarf Grey Sugar (59 days) If you're looking for a snow pea with purple flowers, this old standby dating all the way back before 1773 is the best we know. Burpee sold it for 15¢ per packet and 70¢ per pound in 1955. "Dwarf" refers both to its 30" vines and to its elegant thin 2½-3" pods which should be harvested often for classic appearance and great stir-fries. Resistant to F1. ③ A=2oz, $1.00, ~300 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $110.00.

812 Dwarf White Sugar (59 days) "I remember reading somewhere that you lose taste with dwarfs—not so with Dwarf White Sugar—and the quantity is unbelievable," wrote Susan Ziobran of Copake Falls, NY. Although some strains go back to the 1800s, ours is the 1941 Agway introduction. 3' vines produce abundant early yields at top of plants. Easy to pick. Pods small (2-2½") sweet and tender. Susceptible to yellows. ② A=2oz, $1.00, ~270 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $110.00.

818 Oregon Giant (60 days) A giant selection from a giant breeder, Oregon Giant is distinguished for its rich green fat wide 4-5" pods, which are good for stir fries, steaming and eating out of hand. Staffer Susan Kiralis rated them by far the sweetest variety, both raw and steamed, of the ten we grew in 1996. Will retain sweetness so they may be picked a little plumper than the thin-podded varieties. We recommend staking the intermediate 3-4' vines. Another breeding coup by Dr. James Baggett at Oregon State University, introduced 1991. In its first year on our list, we sold nearly 700 pounds, more than any other snow pea since we were obliged to drop Blizzard in 1993. Sales jumped another 400 pounds last year. Resistant to PEMV, PM and F1. ③ A=2oz, $1.00, ~170 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $50.00, L=50lb, $100.00.

819 Blizzard (61 days) The best dwarf snow pea, unfortunately not available because Novartis has discontinued production. Blizzard is a patented variety for which we cannot legally grow commercial seed crops until the year 2005. Blizzard is a perfect example of why the Plant Variety Protection Act is not in the best interests of gardeners and farmers. *Not available this season.*

826 Oregon Sugar Pod II (62 days) Short-vined snow pea from Oregon State University. Pods 4" long, vines 2-2½'. Difficult to pick because fruit tends to set within foliage. Tolerant to PM, resistant to W, tolerant to PEMV. Good choice in sandy soils or under dry conditions. ③ A=2oz, $1.00, ~210 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $110.00.

842 Mammoth Melting Sugar (72 days) The standard climbing snow pea. Vines grow 5-7'. Very heavy yields of 4-5" pods. Continues to produce if kept picked provided powdery mildew does not strike. Very sweet eaten raw as well as sautéed. Heirloom predates 1906. ③ A=2oz, $1.00, ~230 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $110.00.

846 Osaya Endo (72 days) We are still looking for a reliable seed crop grower. *Not available this season.*

SNAP PEAS

860 Sugar Ann (58 days) PVP. 1983 Silver All-America winner from Sugarsnap breeders Gallatin Valley. Dwarf 2' vines. The earliest snap pea, ripening around June 20 here. Very good quality, sweetest of the dwarf snap peas. Not as heavy yielding as tall Sugarsnap. Use to start the season. Resistant to W. ⑤ A=2oz, $1.00, ~235 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $115.00.

884 Sugar Lode (65 days) We called this Sugar Lode because the bushy 3' plants had such tremendous yields in our trial. We harvested 34 pounds in concentrated sets from only 52' of row. Although the pods are slow to sweeten, they develop a good pea flavor which becomes sugary when they are full. Recommended for second early crop after Sugar Ann and for late crop after Sugarsnap because they hold well in heat. Rogers has discontinued seed production. This is the last year we will have seed. 83% germination. ⑤ A=2oz, $1.00, ~215 seeds, B=½lb, $3.00, C=1lb, $5.00. *Not available in larger sizes; seed in short supply. Order early to avoid disappointment.*

892 Sugarsnap (68 days) This breeding coup by Calvin Lamborn was voted the #1 all-time AAS. One of the very best raw treats in the garden, far tastier than the dwarf varieties, although more work to grow. Tall Sugarsnap vines grow 5-7' and need strong stakes. Pods reach superb sweetness only when completely filled. Then they are incomparable. *Caution: We found the new Super Sugarsnap in our trial to be more susceptible to pea wilt. Insist on the original Sugarsnap.* Resistant to W, very susceptible to powdery mildew. ⑤ A=2oz, $1.00, ~225 seeds, B=½lb, $3.00, C=1lb, $5.00, D=5lb, $15.00, E=10lb, $28.00, K=25lb, $60.00, L=50lb, $115.00.

You Can Vine-Ripen Melons In Maine: Here's How

Our extensive trials enable us to offer a superb selection of short-season varieties. Melons are a tender crop with high nitrogen requirements. They love heat, cannot stand frost, and can be damaged by night temperatures below 40°. They require some extra fussing, but oh! are the results ever worthwhile!

- Note days to maturity and select varieties that will ripen in your climate. Sweetie #6, Earliqueen and Yellow Doll are surest bets.
- Start indoors around May 1 in peat pots, 2 or 3 seeds to a pot. Melons resent transplanting but will take if their roots are not disturbed.
- Prepare hills in advance with liberal amounts of well-rotted manure or compost. Don't place melons next to vigorous crawling plants like cucumbers and winter squash. Pollen from adjacent cucumber flowers can cause melons to be bitter.
- Transplant at the onset of a heat wave after all danger of frost is past. Water heavily and, if soil is dry, place a temporary hay mulch around plants until a soaking rain comes.
- Except during droughts, use floating row covers over plants, but to avoid abrasion do not allow covers to touch plants.
- Use black or clear plastic mulch between plants.
- Use a foliar feeding program to speed ripening.
- Remove row covers before buds open. Replace them when you don't desire any more fruit to set.
- To reduce rot loss, rotate ripening melons occasionally. To reduce mouse damage, place ripening melons on bricks.
- Inspect your patch *daily* at ripening time. Check fruits for aroma and color and *pull gently* on those that appear to be ripe. They are ripe if the pressure causes them to slip from the vine. Charentais melons should be harvested just before they slip when they exhibit color change and exude aroma. For watermelons, thumping should produce a low, hollow sound. Spread thumb and forefinger and press hard on fruit. If you feel any give, watermelon is ripe.
- Enjoy an incomparable taste treat!

OPEN-POLLINATED MELONS

Cantaloupe, muskmelon etc. 1 oz=about 960 seeds. Watermelon 1 oz=about 670 seeds. Days to maturity are from date of transplanting.

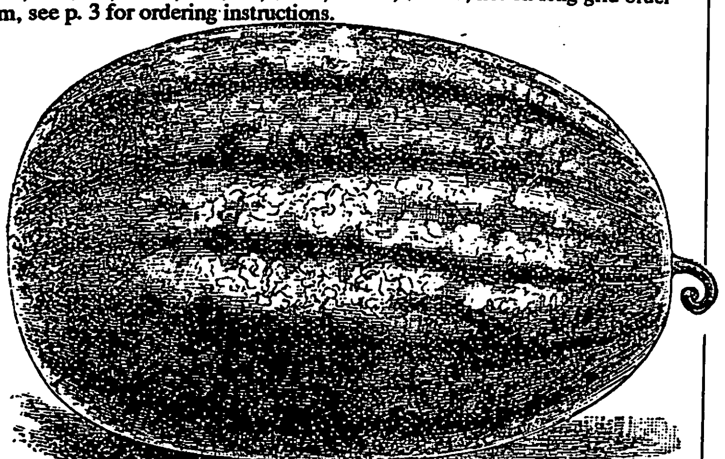
MUSKMELON *Cucumis melo*

908 Jenny Lind (76 days) Johanna Maria Lind (1820-1887), better known as beloved soprano Jenny Lind, was billed as the Swedish Nightingale. She toured America with P.T. Barnum from 1850-1852 thrilling audiences with her glorious bravura singing. This heirloom melon, contemporaneous with her early career, was named for her, and remained very popular in the New York, New Jersey, and Philadelphia area until after her death. A pound of seed in 1918 cost 70¢ from Thomas Griswold & Co. in S. Wethersfield, CT. Jenny has recently enjoyed renewed popularity all over the country. Despite her sparse spindly vines, Jenny is a prolific bearer of small, heavily netted 1 lb. fruits which may be unique among melons for having a turban on their blossom end. Her soft juicy lime green interior flesh is so sweet that it just might make you sing. ③ A=1/16oz, 80¢, B=¼oz, $1.50, C=½oz, $2.50.

914 Green Nutmeg (80 days) These aromatic heavily netted gems weigh 2-3 lbs. apiece with deliciously sweet spicy lime green flesh. Not too imposing on the outside, but a good surprise inside! If subjected to very hot weather, Green Nutmeg may develop a bitter cucumber-like taste. Heirloom dates back to the 1830s. Berne, IN seedsman C.P. Hirschy sold it for a nickel a packet in 1890. ③ A=1/16oz, 80¢, ~75 seeds, B=¼oz, $1.50, C=½oz, $2.50.

926 Golden Gopher (85 days) Called by Jeanne Griffin "the choice of the discriminating melon lover," this heirloom was developed in the 1930s at the University of Minnesota. Glenn Drowns was the original source for the seed which Griffin grew out and multiplied enabling Fedco to return Golden Gopher to commerce after many years absence. Heavily ribbed fruits have deep deep orange flesh of incomparable eating quality. Sometimes called "Pop Open" melons because of their tendency to split open when ripe. Resistant to F. We have a limited supply of seed, some grown at Elevation 290 Farm in Oregon, the smaller lot grown organically in St. Albans, ME. BACK! ① A=1/16oz, 80¢. *Not available in larger sizes. Order early to avoid disappointment.*

940 Delicious 51 (88 days) Returned to our list in 1996 after a 14-year hiatus. Some consider Delicious 51 to be the best open-pollinated muskmelon for cold climates still commercially available. One trialer compared its flavor to that of fine sorbet. Sweet 3 lb. fruits with medium to sparse netting over distinct ribs turn yellow at maturity, may be soft when ripe. Dark orange interiors with sweet juicy aromatic flesh. Developed by Dr. Henry Munger of Cornell University in 1953. ② A=1/16oz, 80¢, ~43 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1lb, $12.50, not on long grid order form, see p. 3 for ordering instructions.



WATERMELON *Citrullus lanatus*

Intrigued by the challenge of telling ripeness in watermelons? According to the August 1999 issue of *Growing For Market* students at the University of Delaware have designed a machine for testing ripeness using the time-honored thumping principle. Their device thumps the melons, then measures the resonance of the sound. Sound frequencies between 100 and 200 Hertz correlate with the desired sugar content of 8%-12%. No word on whether the machine survived this summer's field testing. Stay tuned, maybe someday watermelon thumping machines will be as common on farms as grass edgers are in suburbia. Somehow I hope not! I like Linda Hildebrand's method the best. She cracks open melons at Food Bank Farm in Hadley, MA, until she finds that one with perfect flavor, then looks for others in the field that have similar exterior characteristics. "The best way to tell is by tasting," she says.

958 Early Moonbeam (78 days) One of breeder Alan Kapular's notable successes in de-hybridizing hybrids. Early Moonbeam is an open-pollinated selection from Yellow Doll. Kapular retained most of Doll's strengths including earliness, icebox size (5-8 lb.), sweet yellow flesh, and colorful rind of dark green stripes on a greenish-white background, while sacrificing only a scintilla of uniformity and flavor. Best of all, Moonbeam is a stablilized variety which will come true from seed. Seed organically grown in Oregon. NEW! ① A=1/16oz, 80¢, ~43 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=4 oz, $12.50, not on long grid order form, see p. 3 for ordering instructions.

962 Sugar Baby (80 days) The standard northern icebox watermelon grows 8-10 lb. fruits, dark green on outside and deep red on inside. Flesh quality grainier than comparable hybrids. Developed or found by an Oklahoma grower around 1960. ② A=1/16oz, 80¢, ~45 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1lb, 12.00, not on long grid order form, see p. 3 for ordering instructions.

968 Cream of Saskatchewan (80 days) For the second consecutive year we have a full crop, organically grown in the unlikely cold clime of St. Albans, ME, by Jill and Peter de Bethune, a feat way beyond the achievement of our previous growers in Virginia and Oregon! John Navazio, now plant breeder for Chriseeds in Washington, has said that "of all the cool climate melons I've grown in Oregon, Maine and Wisconsin, this takes the cake, not just sweet but real character and flavor." We've worked to offer these sweet juicy melons with cream-colored flesh and abundant seeds ever since Navazio gave me my first taste around ten years ago. Round 6-10 lb. light green fruits with dark stripes are prone to split because the rind is thin and brittle. Heirloom said to have originated in the Ukraine and brought to Saskatchewan by immigrants early in the 20th century. ① A=1/16oz, $2.00, ~30 seeds, B=1/4oz, $7.00, C=1/2oz, $12.00.

980 Quetzali (85 days) PVP applied for. An outstanding open-pollinated red watermelon, sweet (12% sugars) with some substance. Ripens 9-12 lb. fruits with dark-green rind splotched with lime-green sponge prints. Even more attractive on the inside where the dense pink flesh is almost uninterrupted by seeds! The closest we offer to a seedless melon. This find came from, of all people, Novartis. I didn't know they were even working with open-pollinated melons any more, but I'd love to see more developments from them like Quetzali. *Caution: Requires a sharp knife, strong wrist and sure stroke to cut open its dense rind.* Resists ANTH1. ⑤ A=1/16oz, 80¢, ~40 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50.

984 Sunsweet (85 days) Not only is this large oval open-pollinated watermelon adaptable to most parts of the North, but it also just absolutely loved the extra heat and unusually dry weather we received this summer. Our trialers report that it way outproduced hybrid Sweet Favorite and was earlier and bigger than hybrid Sangria. We're talking two fruits in excess of twenty pounds apiece per plant, more than forty pounds of glorious-colored scrumptious-tasting treats. At the 1999 Common Ground Fair the Wassookeag School of Dexter, ME, sold slices for a buck apiece and went through a lot of melons. Sweet, juicy and refreshing...that's Sunsweet! Rind dark green with broken light green stripes. Resistant to ANTH and F. PVP. ⑤ A=1/16oz, 80¢, ~35 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50.

992 Moon and Stars (100 days) Once feared extinct, this now-famous unique watermelon became a *cause célèbre* for the Seed Savers Exchange. Released by Peter Henderson & Co. as Sun, Moon and Stars in 1926, it was popular in the '30s (in 1931 Great Northern Seed Co. extolled it for its delicious flesh as well as its distinct appearance), before fading into obscurity for almost fifty years. Kent Whealy found it again in 1981 after a four-year search and his son Aaron supplied us with our original seed stock. Because it needs a lot of heat to set fruit, it poses a challenge worthy of the Maine melon-grower's mettle. Capable of ripening sizable melons in a good season such as 1991 when we raised an 18½ pounder, it normally produces smaller fruits in our cold climate. Dark green rind has beautiful yellow spots which range in size from little peas (the stars) to a silver dollar or larger (the moon). Spotted foliage looks diseased to the uninitiated. Very sweet pink flesh is somewhat grainy. ③ A=1/16oz, 80¢, ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50.

HYBRID MELONS

CHARENTAIS *Cucumis melo*

1014 French Orange (80 days) How good is their tangy deep orange flesh? I mistook one for a Golden Gopher in a blind taste test. That's about as strong a compliment as I could bestow on any melon! Cross between a French Charentais melon and a sweet American cantaloupe is ready to harvest when the lightly netted 2-3 lb. fruits develop a yellow-cream blush and become aromatic. They will slip when given a tug. The first full-sized melon with Charentais parentage that usually vine-ripens in our short season without rotting. ⑤ A=1g, $1.50, ~33 seeds, B=3g, $4.00, C=15g, $20.00.

CANTALOUPES & MUSKMELONS *C. m.*

Cantaloupes are named for the papal gardens of Cantalupo, Italy, where some historians say the first cantaloupe was grown. They are smooth-skinned or lightly netted with few ridges. Muskmelons are usually heavily netted and deeply ribbed with larger seed cavities than cantaloupes. One cup of diced cantaloupe contains 3 milligrams of beta-carotene, which the body can convert to more than the recommended daily allowance of vitamin A, and 68 milligrams of vitamin C, more than the RDA. Cantaloupes develop highest sugar content when daytime temperatures exceed 80° and night temperatures are 60-75°. See also **#6820**

1020 Sweetie #6 Cantaloupe (75 days) Our melon trialers Jill and Peter de Bethune call this "the easiest melon in the world to grow and more productive than any other, even Chaca." They should know. Jill looks forward to copious yields of small oval 1-2 lb. fruits that are so good that it's "like eating butterscotch candy." Indeed, Sweetie is called the Butterscotch Melon because it ripens to a swirl of orange and green flesh with a complex of rich fruity flavors that hold deep into the smooth greenish white rind. Sweetie is ripe when it slips off the stem. It keeps well; flavor actually improves with storage. All that's needed to enjoy Sweetie is a modicum of gardening skill and enough of a sense of adventure to try a new kind of melon. "Our customers love 'em," says Jill. You will, too. ④ A=1g, $1.50, B=3g, $4.00, C=15g, $18.00.

1024 Earliqueen Muskmelon (77 days) Developed by Dr. Brent Loy at UNH, Earliqueen is a reliable early producer of 2-3 lb. fruits of uniformly good quality. A good melon to start the season, its orange flesh is remarkably sweet for such a precocious ripener. Won raves at a taste test of apprentices at Hidden Valley Farm with such comments as "YUM,YUM, I like this one," "great all around," "best melon," "rich, deep." ② A=1g, $1.50, ~47 seeds, B=3g, $4.00, C=15g, $15.00.

1030 Passport Cantaloupe (77 days) A delicious green-fleshed cantaloupe developed by Dr. Loy, which ripens more than a week earlier than Rocky Sweet. For maximum sweetness, harvest when skin color has turned yellow. If cool wet weather causes cracking before full ripening, harvest at first yellow blush. Texture is smooth, color ranges from whitish-green near cavity to darker green towards rind, with a subtle delectable—almost tropical—taste. Tolerant to ANTH and GSB. ② A=1g, $1.50, ~33 seeds, B=3g, $4.00, C=15g, $15.00.

1038 Earligold Cantaloupe (78 days) Much more flavor than Sweet Granite or Alaska. Makes a concentrated set of 2½ lb. netted orange-fleshed fruits of uneven quality. The best ones ripen during warm spells to a rich, musky flavor, but in less ideal ripening conditions some are insipid and watery. Skin will turn buff with a melony aroma when ripe. Inspect patch daily as they ripen; their holding quality is suspect. Tolerant to PM and F. ② A=1g, $1.50, ~40 seeds, B=3g, $4.00, C=15g, $15.00.

1044 Fastbreak Muskmelon (80 days) "Bring back Fastbreak melon!" said Polly Hutchison from Rhode Island. Our melon trialer also took me to task for damning Fastbreak with bad basketball jokes and faint praise. She says it ripens much earlier than Pulsar so I haven't even given it a fair shake in maturity ratings. (Our supplier for both, Petoseed, rates it as 14 days earlier which is a stretch). OK, while not yet a clamor, interest is growing in this rough-netted slightly ribbed sweet musky 4 lb. melon with excellent interior color. Good yields and superb eating quality for such an early melon—only Earliqueen can compare. Tolerant to F2 and PM1. ⑤ A=1g, $1.50, ~29 seeds B=3g, $4.00, C=15g, $20.00.

1046 Athena Muskmelon (80 days) Second-favorite behind French Orange in Peter and Jill de Bethune's taste tests. Ripens slightly ahead of Pulsar with nice orange interior color and good sweetness. Oval-round well-netted lightly ribbed fruits average 2½-4 lb. An excellent shipper, recommended for commercial growers. Tolerant to F0,1,2 and PM1,2. ⑤ A=1g, $2.00, ~40 seeds, B=3g, $6.00, C=15g, $30.00.

1054 Pulsar Muskmelon (82 days) "My total production (from five hills) was 265 pounds (56 melons) of the most aromatic and delicious muskmelon I've ever tasted—in my seventy-five years. At least a dozen of our friends told me they were absolutely the best ever. The variety—you may have guessed—Pulsar! What a melon!" wrote Alden McCutchan of Kenyon, MN, after his 1996 season. Since then he has been sending me annual photographs of his largest specimens. This year's best reached a new high of 9½ lb. While that is highly unusual, Pulsar's large deeply ribbed fruits consistently average 4-6 lb., occasionally topping 7. Orange flesh is slightly grainy, exceptionally sweet and aromatic. Ripens dependably with consistent high quality and a muskiness that makes you go back for more. What a treat! Very early for such a big melon—McCutchan's first ripened on Aug. 15, 1996. Tolerant to PM, F. ⑤ A=1g, $1.50, ~30 seeds, B=3g, $4.00, C=15g, $20.00.

1082 Burpee Hybrid Muskmelon (88 days) The first full-sized vine-ripened muskmelon I ever ate was a Burpee Hybrid. What a revelation! The musky succulent 3-4 lb. fruits have been the choice of discerning market growers for more than forty years. When Burpee introduced it in 1955 it was the most expensive vegetable packet in their catalog at 75¢ for 40 seeds, roughly equivalent to $4.50 in 1999 dollars. Fruits heavily netted with distinctive ribbing and delectable orange flesh. Ripe at full slip. Tolerant to PM. ⑤ A=1g, $1.50, ~40 seeds, B=3g, $4.00, C=15g, $20.00.

Jill and Peter de Bethune

Grow watermelon seed just five miles south of the 45th parallel? "No big deal," says Jill de Bethune.

How did the Bethunes get involved in so outlandish a project at so unlikely a location? "You presented us with the challenge of growing a seed crop that no one else had succeeded in. Once we had our system perfected (for growing organic melons) we wanted to see how far we could push it."

They've proven they can grow melons in even the coldest Maine summers. In fact, recently they've been having more problems with melons ripening too soon than too late.

Jill and Peter made the natural transition from melon growers to trialers to seed growers. They quickly found they weren't temperamentally suited to market gardening. Now, melons are the only crop they market, and the Common Ground Fair their only significant venue. "Doing trials was a fascinating way of seeing the wide variety of what could be grown here," says Jill.

Growing seeds presents a few additional obstacles. Maintaining isolation distances for the seed crop while continuing with the trials is their biggest farming challenge. They've had to use other people's land in order to keep their watermelon varieties separated by the requisite quarter mile.

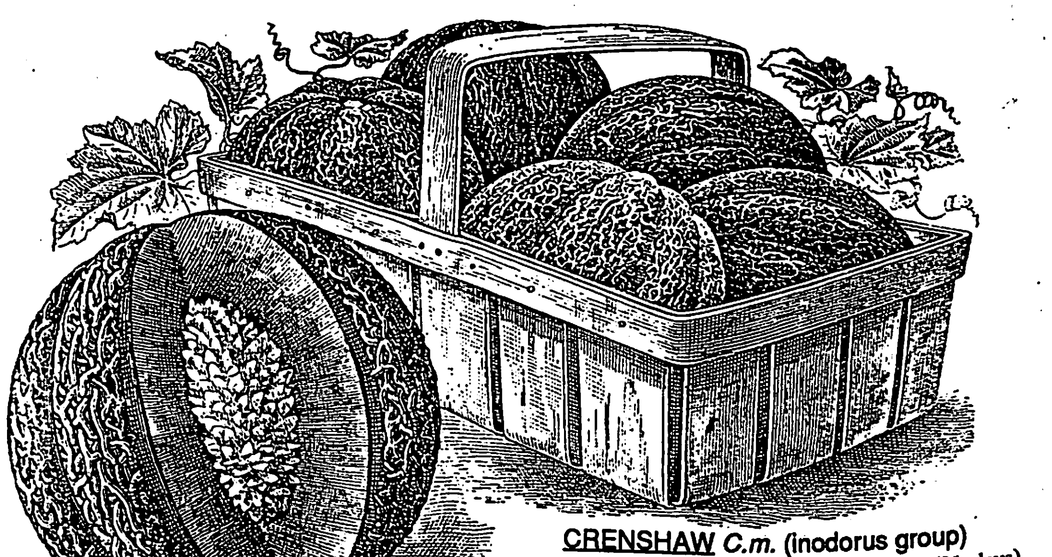
Cleaning the watermelon seed, not growing it, has proven to be their biggest problem. Shake muskmelon seed and pulp in a jar and the good seed will eventually sink to the bottom. Not so with watermelon seeds. So far they've tried many different ways of cleaning the seed, but each has been time consuming out of all proportion to the value of the crop. They're looking for a technological brainstorm to speed the labor without injuring the seed. They think they'll find the answer soon.

Peter's next fantasy moves beyond seed growing into breeding. He'd like to work on crossing open-pollinated varieties to find one as productive, easy to grow and flavorful as Yellow Doll and then stabilize his new line. Along the way, Peter and Jill will continue enjoying their trademark multicolored melon salads.

1090 Ambrosia Cantaloupe (91 days) This sweet juicy salmon-fleshed melon is the choice of discriminating growers in areas where the season is sufficiently long. Round fruits average 4 lb. with thick, almost silky smooth flesh and very small cavities. The taste lives up to its name. Can harvest when fruits begin to blush yellow before full slip, and finish ripening indoors, as fruits tend to crack before full slip in cool conditions. *Caution: Not adaptable in short-season areas.* ⑤ A=1g, $1.50, ~33 seeds, B=3g, $4.00, C=15g, $20.00.

HONEYDEW *C.m.* (inodorus group)

1096 Earli-Dew Honeydew (88 days) A delicious green-fleshed smooth-skinned melon suitable for cool northern areas. 2½-3 lb. fruits blush yellow when mature. Tolerant to PM and F2. ⑤ A=1g, $1.50, ~45 seeds, B=3g, $4.00, C=15g, $20.00.



CRENSHAW *C.m.* (inodorus group)

1098 Burpee Early Hybrid Crenshaw (91 days) We were very "meloncholy" when Petoseed dropped its Honeyshaw Crenshaw a few years ago, but here is a suitable replacement. Burpee Crenshaw yields teardrop-shaped 7-10 lb. fruits with firm thick orange indescribably tangy flesh. Flavor is smooth, subtle, refreshing, but not musky. It passed the ultimate melon test by inspiring total passionate abandon among friends of Jill de Bethune who asked her, "What in the world was that melon you gave us?" Rind turns from green to blush yellow as it ripens. *Caution: May not mature in northernmost areas.* ⑤ A=1g, $1.50, ~30 seeds, B=3g, $4.00, C=15g, $20.00.

WATERMELON *Citrullus lanatus*

U.S. per capita consumption of fresh watermelon has increased 50% since 1980.

1110 Yellow Doll (75 days) Our customers, knowing that the sweet yellow flesh of Yellow Doll cannot be matched by any of the red varieties, have made it our best-selling melon year after year. Doll's 4-7 lb. icebox fruits on a semi-compact vine have a light green rind with dark stripes. Earliness and superb quality make Yellow Doll the best. Vine-ripens even when all others fail. ⑤ A=1g, $1.50, ~29 seeds, B=3g, $4.00, C=15g, $15.00.

1134 Golden Crown (80 days) These small oblong watermelons weren't a big hit when we offered them a few years ago, but we think they have great merit. Without a doubt, their golden-yellow luminescent rind makes them the most photogenic of watermelons. Inside the thin rind lies another surprise: delicious juicy red flesh. Early maturity suitable for cold climes and good yields helped Golden Crown win an All-America award. Tolerant to PM, ANTH and viruses. Developed by Known-You Seed Co. in Taiwan. BACK! ③ A=1/2g, $1.50. *Not available in larger sizes.*

1142 New Orchid (80 days) Turn your watermelon feast into a rainbow of colors with apricot-fleshed New Orchid. The perfect complement to Yellow Doll, almost as sweet and tender, almost as early, not quite as uniform. Rind is similar to Yellow Doll's, but with darker green stripes. The 7-8 lb. fruits are slightly larger than Doll's, with fewer seeds inside. Scooping out an Orchid is a little like eating a bowl of orange sherbet. The world-class Japanese watermelon hybridizers have created another delectable triumph. Expensive, but enough seed so you can enjoy this treat without having to mortgage the farmstead! ③ A=1/2g, $1.50, ~8 seeds. *Not available in larger sizes.*

1164 Jade Star (85 days) One of our most underappreciated varieties, ripening quickly for such a big melon. Jade Star stole the show in our 1990 watermelon trial, producing round dark green fruit in excess of 10 lbs. Those who tasted the one we brought to our Common Ground Fair booth that fall declared it the most delicious watermelon they'd ever had. Since then we've tried a score of other watermelons without finding any to match Jade's taste. Deep red flesh—similar to that of Sugar Baby but superior in quality—contrasts with its dark rind. Jade is the one red watermelon I would never be without. ⑤ A=1g, $1.50, ~30 seeds, B=3g, $4.00, C=15g, $12.00.

1176 Sweet Favorite (86 days) 1978 AAS from Sakata. One of the best oblong watermelons for the North. Consistently produces fruits in excess of 10 lb. Flesh sweet, bright red. Green rind with dark stripes. Used as a "control" in our 1998 taste test, it way surpassed the eight other Fedco wannabees. Tolerant to ANTH and F. ④ A=1g, $1.50, ~20 seeds, B=3g, $4.00, C=15g, $15.00.

1188 Sangria (88 days) The sweetest (12-14% sugars), juiciest watermelon in our trials. These elongated ovals average 10-11 lb. with dark green rind broken by light green stripes. Very heavy yielding even in the unfavorable 1996 growing season. Bright refined red flesh will satisfy the most avid sugar seekers. Sangria, the first hybrid Allsweet type ever developed, has been a big hit on the market. Staffer Tom Levesque's big red juicy Sangria met with much acclaim at our Aug. 23, 1997, staff picnic. *Caution: May not ripen in northernmost areas.* Tolerant to some races of ANTH and F. ⑤ A=1g, $1.50, ~20 seeds, B=3g, $4.00, C=15g, $20.00.

CUCUMBERS *Cucumis sativus*

1/16 oz packet sows 11 ft, 1 oz about 180 ft. Very tender, will not survive frost. Sow 2" apart in rows 3' apart or 6 per mound in hills 4' apart thinning to 3 best plants. Combat striped cucumber beetles by handpicking early AM when the dew makes them sluggish, or use floating row covers, removing when cukes flower. Pick frequently for best production. Americans eat an average of 106 pickles a year.

PICKLING

1226 National (52 days) Open-pollinated. Aiming to create a variety adaptable for both small pickles and dills, the National Pickle Packers Association initiated a collaborative venture with the Michigan Agricultural Experiment Station in 1924. By 1929, with the introduction of National, which was subsequently distributed by the Association, they had a success. Not quite as early as Northern Pickler, but tending to hold quality over a longer season, the firm black-spined dark-green fruits are usually quite sweet, rarely bitter. Plants are vigorous dependable producers. Resists CMV and scab. ③⑤ A=1/16oz, 60¢, ~65 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $10.00.

1232 Calypso (52 days) Heavy-yielding hybrid of gynoecious type. Fruits medium-dark green with white spines. Tolerant to ANTH, ALS, CMV, DM, PM, resistant to scab. ⑤ A=1/16oz, 60¢,~55 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $8.00, K=1lb, $30.00.

1234 Cross Country (52 days) F-1 hybrid. The best pickler in our 1999 trial with abundant blocky straight dark green white-spined fruit of good quality. Our trialer described its sweet taste as "crunchy and cool." Has an ideal length/diameter ratio of 3-3.2 and was highly rated in brine tests. So named because of its widespread adaptability. Resistant to scab, ANTH, ALS, PM and DM. NEW! ⑤ A=1/16oz, 60¢, B=1/4oz, $1.00, C=1/2oz, $2.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $40.00.

To Our Friends in Warmer Climates

We are located in Zone 4, where we have about 100 frost-free days.

We've begun to receive requests for varieties and growing information for areas other than the Northeast. Because all our experience is in cold-climate gardening, and because we see ourselves as primarily a regional seed company, we have chosen to focus on what we do best.

We will continue to limit our selections to proven performers in our cold climate. We won't recommend overwintering varieties that can't survive our cold winters, even if they can make it through in regions with more moderate winters. Nor will we address problems caused by pests such as squash vine borer which are not prevalent in our area nor do we feel qualified to give advice about which varieties can be sown in early spring south of the Mason-Dixon line.

Although many of our selections thrive outside of our own region, some are adaptable to a narrower geographic range and may perform poorly in your area. While we welcome your orders from the South, Southwest, Midwest and Pacific Northwest, we suggest that you find a supplementary regional seed source for varieties and information appropriate for your locale that are missing from our catalog and that you select your seeds carefully. Thanks for your support.

1240 Vert de Massy French Cornichon (53 days) A superb open-pollinated variety for gherkin makers. The very spiny fruits should be picked when finger size for delicious tiny pickles. Vines are incredibly high yielding—they just crank out the fruits from July to frost! Fruits are slender, but tend to curve if allowed to grow too large. French heirloom from the 1800s. *Caution: Vert de Massy is too bitter for eating out of hand. It should be reserved for pickling.* ⑤ A=1/16oz, 60¢, ~60 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $10.00, K=1lb, $40.00.

SLICING

1312 Marketmore 76 (63 days) Open-pollinated. Probably the leading slicing variety in the Northeast. Dark green 8-8 1/2" fruits show good uniformity. Vines vigorous throughout season. Tolerant to CMV, DM, PM, resistant to scab. Developed by Dr. Henry Munger. ② A=1/16oz, 60¢, ~ 85 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $16.00.

1328 General Lee (66 days) F-1 hybrid. Although the Confederate general fell a little short 135 years ago, this General might just conquer some Yankee gardeners and farmers. High yields of uniform straight dark-green white-spined 8-8 1/2" slicers don't peter out in the halcyon days of summer. Doesn't develop yellow "bellies" and retains that good Sweet Salad flavor. Along with Cross Country (#1234), the best of the 28 cucumbers we tested in the last two years. Tolerant to scab, CMV, PM and DM. NEW! ⑤ A=1/16oz, 60¢, B=1/4oz, $1.80, C=1/2oz, $3.00, D=1oz, $6.00, E=4oz, $20.00, K=1lb, $75.00.

1334 Marketmore 86 (68 days) Open-pollinated. Similar to Marketmore 76 except it has a smaller semi-bush vine for easier picking. Broad disease tolerance (CMV, DM, PM and scab) and more vigor make the quality of its 8" fruits superior to other non-vining types. Not burpless. ② A=1/16oz, 60¢, ~65 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $16.00.

1356 Shantung Suhyo Cross (60 days) F-1 hybrid. Produces a plethora of uniform 12-14" never-bitter sweet-tasting cukes. Even in dry conditions the vines keep making quality fruits which never develop shrunken necks. Our cucumbers were very gracefully curved, although had we provided trellising they would have been straight. Seed comes from Japan and is very expensive. Tolerant to DM, PM, CMV. ⑤ A=1/2g, 60¢, ~20 seeds. *Not available in larger sizes.*

1360 Boothby's Blonde (63 days) Maine, once famous for its lobster license plates, still celebrated for its rabid Red Sox fans, also boasts its own heirloom cucumber, maintained for five generations by the Boothby family of Livermore. Boothby's fruits are short, plump and oval-shaped, averaging 3-4" and becoming yellower as they mature. They feature a creamy exterior with contrasting black spines and a juicy refreshing interior. Seed cavities are larger than those of most other cukes, but the seeds themselves, far from being objectionable, add to the mild sweet flavor that makes the fruits so good for eating out of hand. Boothby's usually lacks the bitter aftertaste that characterizes so many of the other white cukes we've trialed. Has the "cool" texture I've usually found only in the Mideastern types. Will Bonsall deserves credit as Boothby's goodwill ambassador, passing it on years ago to Pinetree Seeds and now to us. Seed grown in Maine veganically. *Seed in short supply; order early.* ① A=1/2g, 60¢, ~6 seeds, D=4g, $3.00. *Not available in other sizes.*

1372 Lemon (68 days) Open-pollinated. Salad chefs and backyard gardeners have rediscovered this specialty variety which dates back to the 1894 catalog of Samuel Wilson of Mechanicsville, PA. Heavy yields of rounded 3" fruits shaped somewhat like lemons. Color evolves from pale greenish yellow (immature) to lemon yellow (best eating stage) to golden yellow (full maturity and seed production). Very crisp and sweet; never get bitter and one of the best for eating right out of the garden. My dog Kai has learned to harvest these and play ball with them. ② A=1/16oz, 60¢, ~57 seeds, B=1/4oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $20.00.

1382 Amira Middle Eastern (52 days) F-1 hybrid. While no other Beit Alpha type can match the refreshing qualities of Hylares (which the grower discontinued), Amira's 4-5" green smooth-skinned fruits are enjoyably mild and almost completely free of the bitterness quite common in American slicers. Dorothy LeGeyt of East Hartland, CT, found them to be real thirst-quenchers. Commercial growers: Note that Amira has heavy early sets. Tolerant to CMV, DM, PM. ⑤ A=1g, 60¢, ~33 seeds. *Not available in larger sizes.*

1392 Telegraph Improved European (60 days) Originally developed for greenhouse production, but suitable for growing outdoors if trellised, this open-pollinated European cucumber has long (10-14") slim smooth-skinned fruits of very delicate mild flavor, never bitter. Unsupported vines will produce curved and misshapen fruit. Telegraph is parthenocarpic, meaning it can set fruit without being pollinated, an advantage in cold, cloudy summers. ③ A=1g, 60¢ ~35 seeds. *Not available in larger sizes.*

1396 Holland (62 days) F-1 hybrid. Runaway winner of my 1995 trials, Holland remains the best-tasting cucumber I've ever had. Bred for greenhouse culture, it produces slender smooth-skinned long, long (12-16") elegant crisp sweet bitter-free cukes—the kind you can find individually plastic-wrapped for a buck fifty apiece in your supermarket. Seeds are very expensive, but we'll take a low markup to keep this one affordable. Some seed companies sell comparable varieties for fifty cents *per seed*. If you grow this parthenocarpic cucumber outdoors, please trellis it for straight fruit. Tolerant to scab. ⑤ A=1/2g, $2.00, ~16 seeds. *Not available in larger sizes.*

SUMMER SQUASH *Cucurbita pepo*

Packet sows 4-6 hills; 1 oz 40 hills. 200-300 seeds/oz. Tender, will not survive frost. Sow in hills 4 ft. apart, 6 seeds/hill. Thin to 2-3 best plants. Pick squash when they are small for best flavor. Floating row covers can hasten maturity by 1 to 2 weeks. If summer starts off cool, cloudy and sunless, lack of female blossoms can be a problem. The combination of unfavorable weather and a declining bee population results in poor pollination. Some experts claim that in the past decade 90% of wild honeybee colonies and 37% of domesticated colonies have been wiped out by mites, creating a real crisis for cucurbit growers.

ZUCCHINI

1402 Eight Ball (40 days) F-1 hybrid. As far as we know, noted squash seed grower Hollar did not have to resort to hiring Minnesota Fats as their publicity director to win an AAS for Eight Ball! Nor are we at all hustling when we inform you that Eight Ball deserved the award. Though we know that round zucchini has been slow to catch on, we think you'll be behind the Eight Ball if you don't give this one a try. Eight Ball has the sweetness and squash flavor that heretofore has been missing from round zucchini. Yes, the attractive shiny speckled dark fruits are mature when they're just a little bigger than pool balls. The plant's open bush habit should please both home and market growers. And with Eight Ball's earliness you might well set a record for the earliest squash you've ever harvested. They'll keep coming, too, till they run your table! ② A=1/8oz, 80¢, ~25 seeds, B=1/4oz, $1.50, C=1/2oz, $3.00, D=1oz, $6.00, E=4oz, $24.00, K=1lb, $90.00.

1406 Spineless Beauty (46 days) F-1 hybrid. When I was growing up, to be called "spineless" was one of the ultimate insults. However, when it comes to zucchini, spinelessness is a compliment, and when you harvest Spineless Beauty your hands will never itch. The 7 1/2x1 1/2" medium dark green fruits are borne on open plants with spineless petioles. A standout in Sam Birch's productive 1998 summer squash trial. ⑤ A=1/8oz, 80¢, ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $16.00, K=1lb, $60.00.

1408 Seneca (48 days) F-1 hybrid. Early, very prolific slim medium-green fruits. In the last five years we've sold over 8,000 packages (195 pounds) of Seneca. If all the seeds were sown and 90% germinated they would have grown 380,000 plants and possibly six million zucchinis. ⑤ A=1/8oz, 80¢, ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $15.00, K=1lb, $55.00.

1418 Seneca Butterblossom (51 days) F-1 hybrid. Bred by Robson Seed Farms to produce a prolific quantity of large, firm male blossoms which hold longer than female flowers and are preferred by chefs as well as Fedco taste testers. By the way, it also produces a fair number of zucchinis. Keep them picked to keep the blossoms coming. ⑤ A=1/8oz, 80¢, ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $15.00, K=1lb, $55.00.

1434 Cocozelle (53 days) Open-pollinated. Rich-flavored zucchini ribbed with light green stripes. Originated in Italy and called *Cocozella di Napoli* in the 1800s. The term zucchini, first used by two California seed houses around 1921, did not come into common parlance until the 1930s. ③ A=1/8oz, 80¢, ~25 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $3.00, E=4oz, $4.00, K=1lb, $8.00.

1442 Gold Rush (54 days) F-1 hybrid. Open plant habit and golden color make the cylindrical fruits easy to find. 1980 All-America winner has caught on with home gardeners and market growers. ⑤ A=1/8oz, 80¢ ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $6.00, E=4oz, $24.00, K=1lb, $80.00.

Weight equivalents

1/16 oz = 1.77 grams

1/8 oz = 3.55 grams

1/4 oz = 7.1 grams

1/2 oz = 14.2 grams

1 oz = 28.4 grams

4 oz = 113.5 grams

1 lb = 453.6 grams

2.2 lb = 1000 grams

1456 Costata Romanesca (60 days) Open-pollinated. We thought all zucchini tasted the same until Will Bonsall sent us samples of Costata. Deeply striped and ribbed, Costata resembles Cocozelle, but its flavor is distinctive: sweet and mildly nutty. In the 1995 Seed Savers Yearbook, Bonsall called it "the only summer squash worth bothering with, unless you're just thirsty." Thanks to its exceptionally tender skin, it is quite good until it grows very large, but it also damages easily, a potential liability for any commercial grower who must transport it. Seedsman Peter Kopcinski has improved the vigor of this strain. Quite drought resistant, Costata actually outyielded hybrid Seneca this August. The variety of choice if you want to win the blue ribbon for largest zucchini at your fair. Alan H. Smith of Maplebrook Farm in Brooklin, ME, grew a 20 1/2 lb. fruit from an enormous 4x6' plant. ③ A=1/8oz, 80¢ ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $15.00, K=1lb, $40.00.

LEBANESE

1488 White Bush (50 days) Open-pollinated. Also called Mid-East or Cousa squashes, Lebanese types are bulbous-shaped light green with white speckles. Robust bushes bear prolifically. Pick fruits when they are young and tender or allow them to fatten for stuffing. Very flavorful. ② A=1/8oz, 80¢, ~26 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $8.00, K=1lb, $15.00.

YELLOW

1506 Sundance (47 days) This F-1 hybrid crookneck ripens almost 2 weeks earlier than standard crooknecks! And it keeps right on cranking out until frost finally halts it. We have averaged 18 fruits per plant. ⑤ A=1/8oz, 80¢, ~40 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $18.00, K=1lb, $70.00.

1522 Seneca Prolific (51 days) F-1 hybrid. Heavy-yielding yellow straightneck squash for the North. High yields early. ⑤ A=1/8oz, 80¢, ~47 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $6.00, E=4oz, $20.00, K=1lb, $70.00.

1538 Crookneck (58 days) Open-pollinated. Deep yellow warted fruits with bulbous shape and narrow, curved necks. Best when picked young. Dates back to 1700 and a standard in early 19th century American seed catalogs. Offered by C.P. Hirschy in 1890 for a nickel a packet, 85¢ per pound. ② A=1/8oz, 80¢, ~40 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $3.00, E=4oz, $4.00, K=1lb, $10.00.

PATTY PAN

1580 Sunburst (52 days) F-1 hybrid. Gourmets call Patty Pans "scallopini," and consider them the most appetizing of the summer squashes. Sunburst is the most attractive of the Patty Pans with its bright yellow skin. 1985 AAS. ⑤ A=1/8oz, $1.20, ~39 seeds, B=1/4oz, $2.00, C=1/2oz, $4.00, D=1oz, $8.00, E=4oz, $30.00, K=1lb, $110.00.

1590 Benning's Green Tint (55 days) Open-pollinated scalloped pale green counterpart to Sunburst. Fruits are most tender at 2-3" diameter. Susan Pierson of Massachusetts rates Benning's as the best-tasting summer squash, "far surpassing Sunburst and other summer squashes—good texture, too." Market grower Alan LePage also lauds its flavor and considers it an underappreciated variety. Hedrick dates this variety back to 1914. ③ A=1/8oz, 80¢, 75¢, ~34 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $12.00.

Open-pollinated WINTER SQUASH

Plant 4-5 seeds per hill. Allow 4-6 feet between hills. Tender, not frost hardy. Heavy nitrogen feeders. Use floating row covers for earlier ripening and cucumber beetle control. We are looking for a good organic control for the squash bug. Any suggestions? Excessive heat and/or drought can prevent blossom set, reduce yields. To improve flavor and storage, field cure for at least 10 days after harvest, covering if hard frost threatens. Store under proper conditions, 50° and 60-70% relative humidity. Approximate seed counts: Acorn, Buttemut 280 seeds/oz, Buttercup 160 seeds/oz, Hubbard 120 seeds/oz, Spaghetti 190 seeds/oz. See also **#1701-1799.**

1608 Table Queen Acorn (90 days) *Cucurbita pepo* 1 1/2-2 lb. black-green ribbed fruits. Good for baking. Dry flesh is best eaten within 3-4 mos. after harvest. Introduced by the Iowa Seed Co. in Des Moines in 1913, helping revive interest in smaller winter squashes. A similar squash was grown by the Arikara tribe in North Dakota. Peto-Hollar charged 72¢ per pound wholesale for Table Queen in 1953. ②③ A=1/4oz, 80¢, ~73 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

1622 Bush Buttercup Emerald strain (80 days) *C. maxima* Fruits generally a lighter green than Burgess Buttercup, not as uniform or good quality but ready 2 weeks earlier. Its mostly bush habit saves space. ② A=1/4oz, 80¢, ~35 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

1628 Burgess Buttercup (95 days) *C. max.* Sweet deep-orange flesh makes it New England's favorite winter squash. 4 lb. fruits have acorn-shaped button on the blossom end and flattened shoulders. Stem is well dried when ripe. The original buttercup strain showed up as a chance cross between Quality and Essex Hybrid in the trial garden at North Dakota Agricultural Experiment Station during the 1925 season. After further selection, noted seedsman Oscar H. Will of Bismarck introduced it in his 1931 catalog. ②③ A=1/4oz, 80¢, ~31 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

1640 Ponca Baby Butternut (90 days) *C. moschata* We're happy this miniature butternut squash is back in commerce. Its 2 lb. fruits ripen tan without green streaking. They're ideal for gardeners with short growing seasons who like butternut but can't vine-ripen Waltham. These small fruits don't store as well as their Waltham cousins. **BACK!** ② A=1/4oz, 80¢, ~31 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $8.00, E=1lb, $18.00, K=5lb, $80.00.

1646 Waltham Butternut (105 days) *C. mos.* Elegant 9" tan fruits weighing 4-5 lb. Orange dry flesh has a sweet nutty flavor. Excellent keeper. 1970 AAS. *Caution: often fails to ripen in northernmost areas.* ②③ A=1/4oz, 80¢, ~72 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

Can't Combine Orders to qualify for Volume Discounts

Why not? Quite simply, we'd go broke if we allowed it. We could raise prices and do it, but then we would look bad in price comparisons with other companies. We think the discounts are pretty generous as is, especially when compared with some of our competitors'.

1647 Waltham Butternut OG (105 days) Same as above; organic seed. ③ A=1/4oz, 80¢, ~72 seeds, B=1/2oz, $1.50, C=1oz, $3.00, D=4oz, $8.00, E=1lb, $30.00. *Not available in size K, order size E.*

1650 Golden Delicious (105 days) *C. maxima* Bright reddish-orange teardrop fruits weigh 7-10 lb. with smooth-textured thick orange flesh. Much beloved by home gardeners, commercial canners and baby-food makers since its introduction in 1926 by Gill Bros. Seed Co. of Portland, OR. Its breeders combined the orange color and earliness of the celebrated Boston Marrow with the quality and size of Delicious. Not as sweet as Burgess Buttercup, nor as dry as the Japanese squashes, nevertheless makes pretty fair eating. In fact, the word "moderately" shows up repeatedly in Hedrick's 1937 description, and it is well chosen. Nothing moderate about its beauty in the garden, however. Would stand on its own merit as an ornamental; getting to eat it is an added bonus, and it keeps well, too. **NEW!** ② A=1/4oz, 80¢, ~72 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $8.00, E=1lb, $24.00. *Not available in size K, order size E.*

1654 Blue Hubbard New England strain (100 days) *C. max.* Introduced in 1909 by famous seedsman James J. H. Gregory as Symmes Blue Hubbard, in honor of S. S. Symmes, a gardener who worked for his company for many years. Gregory considered it his best introduction, praising its flavor, productivity and storage qualities. In his 1917 catalog he said "close your eyes...and you would think you were eating cake." Bright yellow-orange dry sweet flesh. Each squash will feed a large family because fruits average 15-20 lb., sometimes exceeding 30 lb. Vines crawl all over the garden. Traditional New England favorite. I often stuff one for Thanksgiving. Prized also for its large white sweet seeds delicious roasted. ② A=1/4oz, 80¢, ~29 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $6.00, E=1lb, $20.00, K=5lb, $90.00.

1660 Sweet Meat (95 days) *C. max.* This tasty 12-15 lb. slate-grey heirloom, said to have been maintained by an Oregon family for 100 years, has a loyal following in the West. Its dry sweet nutty thick orange flesh is said to improve in storage. Much more economical than Blue Hubbard with a flavor rivaling the old New England favorite. We hope this excellent keeper will catch on in the East. ③ A=1/4oz, 80¢, ~20 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

1666 Spaghetti (88 days) *C. pepo* A novelty item which caught on and now has devoted followers. Attraction is the spaghetti-like strings in the flesh. Flavor is rather bland. Buff skin turns pale yellow at maturity. Oblong fruits, generally around 4 lb., often are the first winter squashes to ripen in August. ② A=1/4oz, 80¢, ~46 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $14.00, K=5lb, $65.00.

1672 Turk's Turban (100 days) *C. maxima* Though a maxima, it is often associated with the gourds because its principal function is decorative, not culinary. Flattened, drumlike 3-5 lb. 7x7" squashes have an acorn-like protuberance on the blossom end which takes on spectacular tricolored stripes when mature. Below the "button" rind is deep orange-scarlet red. Last offered by Fedco in 1993. Light yellow flesh probably not of table quality, though some use it in soups. First historical reference is from France (1818). **BACK!** ② A=1/4oz, 80¢, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $8.00, E=1lb, $24.00. *Not available in size K, order size E.*

OPEN-POLLINATED PUMPKINS

Pumpkins are native to N. America and their seeds have been found in Mexico in burial grounds going back 5-7,000 years. See also **#1801-1899.**

1674 Baby Pam (99 days) *C. pepo* Agway pie pumpkin has deep orange color and excellent uniformity. Best of all, it vine-ripens 80-90% of its fruits even in a bad year. Fruits average 3-5 lb., slightly smaller and earlier ripening than New England Pie with the same excellent quality. ② A=1/4oz, 80¢, ~68 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $18.00, K=5lb, $80.00.

1682 New England Pie (102 days) *C. p.* The standard small sugar pumpkin, ideal for pies. Has been a favorite since around 1860. Fruits average 5 lb. Most vine-ripen in a good year, about half in a so-so year. ② A=1/4oz, 80¢, ~70 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $12.00, K=5lb, $55.00.

1688 Young's Beauty (105 days) *C. p.* Unimpressed by Autumn Gold's "precocious yellow" gene? Don't care for its tendency to produce irregularly shaped fruit? Prefer a classic mid-sized open-pollinated pumpkin that usually ripens perfect brilliant deep orange globes? Try Young's Beauty. Expect good production of uniform hard-skinned thick fleshed 10-12 pounders which make good pies. Although Hollar discontinued seed production, we're keeping this beautiful pumpkin in commerce. *Caution: May not ripen in northernmost areas.* ③ A=1/4oz, 80¢, ~50 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $8.00, E=1lb, $30.00. *Not available in size K, order size E.*

1694 Connecticut Field (115 days) *C. p.* Big pumpkin for Jack O'Lanterns gets 15-25 lb., sometimes more. Heirloom grown by Native Americans and adopted by colonists before 1700. Hirschy sold for 4¢ per packet in 1890. *Ripens for us in good years, but often we must pick green and sun cure.* ② A=1/4oz, 80¢, ~42 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $12.00, K=5lb, $55.00.

1698 Big Max (120 days) *C. maxima* Your kids can have fun growing this giant squash. They may need help moving it, though, because it typically weighs 50-100 lb. and measures up to 70" in circumference! It makes a great Jack O'Lantern. Or, if you don't carve it, you can use it as a temporary chair! ② A=1/4oz, 80¢, ~24 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $5.00, E=1lb, $16.00, K=5lb, $75.00.

FANCY WINTER SQUASH

1710 Festival (84 days) *Cucurbita pepo* F-1 hybrid. Festival was the surprise of our October 1998 squash-tasting feast. We knew it was a pretty face, looking as if it were painted to show the beauty of Autumn. But we weren't prepared for the delectable sweetness of the yellow flesh. We took a few bites out of the Acorn, the Cushaw and the Orange Dawn, then passed them on to the dogs, but we ate the Festival right down to the skin. Shaped like Sweet Dumplings, most of the 1 1/2 lb. fruits are yellow streaked with orange, dotted with occasional green flecks. Others are buff with green or yellow streaks at the ribs and green flecks. Their strong eye appeal will attract initial customers and their great taste will bring folks back for more. Semi-bush vines conserve space. ③ A=1/8oz, 80¢, ~22 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $65.00.

1712 Burpee's Early Acorn Hybrid (84 days) *C. p.* F-1 hybrid. I was very surprised to discover that acorn squash can be this good. Sweeter and drier than other acorns we've tried, Burpee's top-quality fruits get up to 4 lb., yet ripen a week ahead of Table Queen. Saves some space with its large bush habit. ⑤ A=1/8oz, 80¢, ~35 seeds, B=1/4oz, $1.50, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $70.00.

1720 Sweet Mama (88 days) *C. maxima* F-1 hybrid. If you like buttercup squash you should try Sweet Mama, a grey-green drum-shaped buttercup type with rounded shoulders and without the cup. Significantly earlier than Burgess with outstanding sweet flavor. My favorite large winter squash, Mama will interest commercial growers as well as home gardeners. 1979 All-America winner. ⑤ A=1/8oz, $1.50, ~22 seeds, B=1/4oz, $2.50, C=1/2oz, $5.00. 190 seeds/oz. *Not available in larger sizes, order size C.*

1732 Pasta Spaghetti (90 days) *C. pepo* F-1 hybrid. If you find Spaghetti squash bland, you may want to try Pasta. Its rich yellow flesh has a flavor that stands on its own, not just as the underpinning for traditional spaghetti toppings. Dorothy LeGeyt grew them for the first time in 1997 and became a convert. She described Pasta as "great for vegetarians and non-grain pasta fans!" Medium-vined plants set 8" cream-colored 2-2 1/2 lb. fruits which ripen to a light yellow. ⑤ A=1/8oz, 80¢, ~23 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $65.00.

Wini and Pete Noyes

Few seed growers produce a bumper crop the first time. So when Wini and Pete Noyes grew 235 pumpkins and 16 1/2 pounds of Long Pie Pumpkin seeds on only 2500 square feet in 1998, we were impressed.

Beginner's luck? Hardly. Despite having to sprout and replant some of their crop, Wini reports their yields nearly doubled in 1999. 470 pumpkins from 70 hills? A literal ton of fruits on one-sixteenth of an acre? Better than a pound of seed per 100 square feet? Amazing!

Noyes has several explanations. They got lucky with their crop selection. "Long Pie turned out to be a very easy seed to process...These seeds don't stick to the strings and you could just scoop them out."

She also credits the high organic matter content of their soil and "vast quantities of manure." Their experience is living proof of the efficacy of 20 years of soil building. When they started, the soil was rocky, had no tilth, was "just dreadful." Now it usually tests at 8% organic matter.

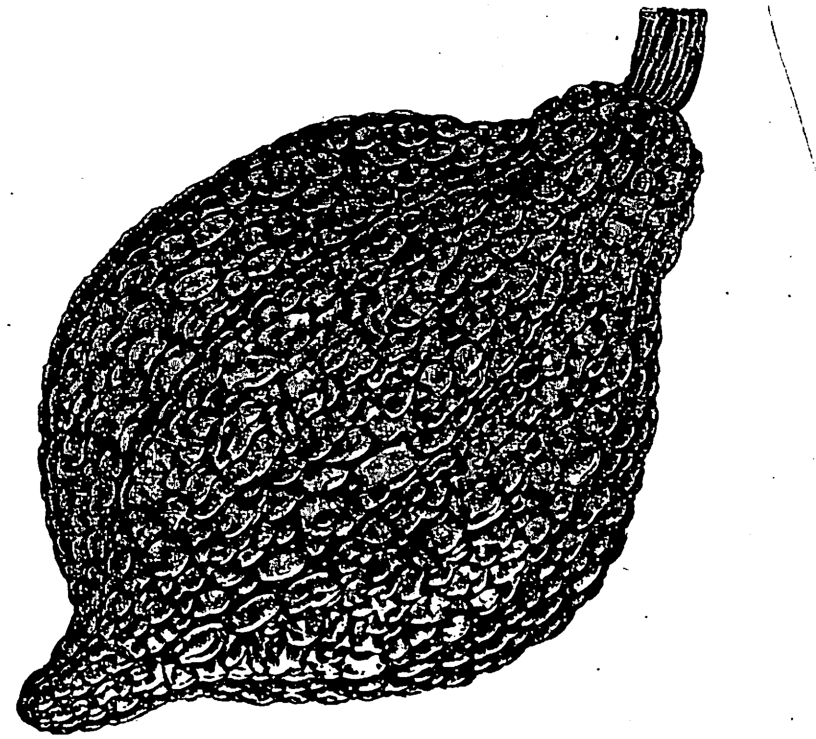
Noyes is too modest to cite their strong sense of organization. But good organization seems to be the thread that runs through all our seed growing success stories. The ones whose crops work always seem to know how many plants produced how much seed on how many acres with how many hours labor. If they don't know immediately, they can always access the information in their notebooks in a jiff.

Noyes' numbers look good. She estimates they realized $10 per hour for all the time spent dealing with their crop, including planting, weeding, manuring, and cleaning. Unlike the Bethunes, only 25% of their labor was in processing the seeds.

Noyes confesses to have been motivated by "crass materialism" (hoping the garden could pay for itself a little bit) when she approached Fedco purchaser Nikos Kavanya at a spring seed swap. But her rewards have been more than material. "It's been an absolute hoot to say [to people], "Yes, that's our seed..." For our part, entrusting the Noyes with Long Pie looked like a good bet. We had been buying Pete's cedar seedling boxes (#9001) and bat houses (#9356) for years and had built up a good relationship.

Wini and Pete's seed growing successes don't stop at pumpkins. They multiplied one quart of Cherokee Trail of Tears pole bean seed to 2 1/2 gallons. Out of less than one pound of stock seed they grew 70 pounds of Roy's Calais Flint Corn. Wini doesn't mind sharing their living room space with a few bushels of corn. "For the sake of several years of corn muffins," it's not a problem.

1742 Delicata (100 days) *C. p.* Open-pollinated. Also known as Sweet Potato squash. Dates back to 1894. After falling out of favor for many decades, it has regained such popularity recently that we now sell more packets than of any other winter squash. Not only are the ivory-colored fruits with dark green stripes lovely, but also the flavor is unsurpassed. Small fruits with modest seed cavities weigh 1-2 lb. and are good keepers. In storage the green stripes turn a delicate orange and the cream background sometimes yellows. We go through a lot of them each season, slicing them and baking them for a sweet treat! We offer a select strain with oval fruits that has proven superior in trials. Its silvery leaves also add a touch of decoration to the squash patch. *This lot of seed contains approximately 10% gourd off-types. Rogue out any plants with white flowers.* ③ A=1/8oz, 80¢, ~22 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $40.00. 170 seeds/oz.



1750 Sweet Dumpling (100 days) *C. p.* Open-pollinated. We always offered Sweet Dumpling because its 1-1 1/2 lb. ivory-colored fruits with green stripes, shaped somewhat like miniature pumpkins, look so stunning that they sell themselves on the stand. A couple years ago Nikos and I taste-tested Dumpling alongside look-alike newcomer Heart of Gold. Heart was good, but Dumpling was better. Although underripe Dumpling fruits taste starchy and insipid, fully ripe ones are sweet, dry and memorably rich. Deep orange flesh. ③④ A=1/8oz, 80¢, ~55 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $40.00. 440 seeds/oz.

1766 Baby Blue Hubbard (95 days) *C. maxima* Open-pollinated. A scaled-down version of Blue Hubbard (#1654), Baby Blue's vines are much more compact and its fruits much smaller (about 4-5 lbs.) than its counterpart, without sacrificing much quality. ③ A=1/8oz, 80¢, ~40 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $36.00.

1772 Jarrahdale (100 days) *C. m.* Open-pollinated. Add a touch of the unusual to your squash patch with this grey-blue Australian emigré. The 6-10 lb. heavily ribbed fruits flattened on top like pumpkins are sweeter than any pumpkins I know. Thick stringless yellow-orange flesh takes on a complex rich flavor which is excellent for baking and pies. Excellent keeper. **NEW!** ③ A=1/8oz, 80¢, ~40 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $40.00.

1774 Red Kuri (92 days) *C. m.* Open-pollinated. Also called Uchiki Kuri; *Kuri* means chestnut in Japan. While all agree the spectacular red-orange fruits are among the most attractive squashes, comments on their flavor have ranged from "the best winter squash" to "glorified zucchini, flavor like water." Liking the dry flesh of this Japanese squash, we think the truth lies somewhere in between. Very popular at roadside stands. Teardrop-shaped fruits avg. 3-4 lb. ⑤ A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

1777 Nutty Delica (95 days) *C. m.* F-1 hybrid. May be the best of all the Japanese Kubocha-type squashes after storage. Complex flavor of its deep yellow flesh improves with age. "We baked it and really enjoyed the depth of flavor but [it is] very dry," reported trialer Bambi Jones. Vines produce abundant 2-3 lb. flattened round dark fruits stippled with bright green. Grows well in cool conditions. **NEW!** ⑤ A=1/8oz, $1.50, B=1/4oz, $2.50, C=1/2oz, $5.00, D=1oz, $10.00, E=4oz, $40.00. *No size K, order size E.*

1778 Honey Delight (95 days) *C. m.* F-1 hybrid. Squash lovers divide into two main camps: supporters of sweet moist flesh and devotees of dry nutty meats. Honey Delight is to dry squash what Buttercup is to moist. Roberta lobbied for inclusion of her favorite dry Kubocha-type for several years. After more tasters confirmed its superiority over others of the genre, we added it in 1998. Its flesh is as sweet and flavorful as its name implies. Flattened round 5-6 lb. dark green fruits with a silvery mottled overlay are good keepers. This is the last year we will offer. *Seed in short supply; order early.* ④ A=1/8oz, $1.20, ~20 seeds, B=1/4oz, $2.00, C=1/2oz, $4.00. *Not available in larger sizes.*

1792 Green Hokkaido (98 days) *C. m.* These slate-green fruits with thick yellow flesh are preferred by those who like their squash very dry but not particularly sweet. Ribbed rounded fruits are slightly smaller than buttercups. Yields are sparing. Seed organically grown. **BACK!** ① A=1/8oz, 80¢, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $65.00.

FANCY PUMPKINS

1820 Wee-B-Little (90 days) *C. p.* Open-pollinated. This triumph of miniaturization impressed the 1999 AAS judges and will please home and market gardeners and kids everywhere. Mini vines (only 6-8') produce 3-4 mini fruits per plant weighing 8-12 oz. each with sturdy dark green stems providing prickle-free handles. Fruits more upright than Jack Be Little, with darker orange rind, look just like tiny pie pumpkins and could serve as such. Fruits easier to decorate than Jack Be Little because they are not ribbed. NEW! ③ A=1/8oz, $1.20, ~20 seeds, B=1/4oz, $2.00, C=1/2oz, $4.00, D=1oz, $8.00, E=4oz, $28.00, K=1lb, $100.00.

1822 Jack Be Little (95 days) *C. pepo* Tiny ornamental open-pollinated pumpkins weigh only about a half pound. They're great for decorations and a big hit with kids. Also good to eat, said to be excellent stuffed. Flattened, heavily ribbed with vigorous stems. ② A=1/8oz, 80¢, ~59 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $18.00, K=1lb, $65.00.

1836 Autumn Gold (98 days) *C. p.* F-1 hybrid. Even northernmost growers can vine-ripen medium-sized pumpkins with 1987 AAS Autumn Gold. Commercial growers love its "precocious yellow" gene which ensures no green pumpkins at harvest. Instead, immature fruits are yellow, ripening to a deep orange, ribbed, with good handles, 10-15 lb. average. ③⑤ A=1/8oz, 80¢, ~35 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $18.00, K=1lb, $65.00.

1852 Lumina (100 days) *C. maxima* Open-pollinated. According to the lead article in the Sept. 23, 1998, food section of the Boston *Globe*, Lumina's "sweet yellow flesh with lustrous ivory skin...has captivated cooks." A "ghostly" white pumpkin that kids will love, Lumina is also excellent for both carving and painting. The fruit are 8-10" high and average 12 lb., though size varies with growing conditions. As long as it is kept away from frost, Lumina stores well, so a face painted on its smooth surface will last for weeks instead of days. Globe correspondent Victoria Riccardi also suggests that Luminas make stunning holders for soups and stews. Under stress, the fruit may develop blue patches. Lumina originated as a chance sport in one of Hollar's California pumpkin fields about eight years ago. PVP. ② A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $50.00.

1856 Long Pie (102 days) *C. pepo* Open-pollinated. At its best, our work takes me back to childhood, searching for buried treasure, unearthing artifacts which tell a story comprised of equal parts folklore and verifiable history. Here is a true Maine heirloom, widely grown in Androscoggin County sixty years ago, almost forgotten, but deserving revival because its full-bodied orange flesh makes the best pumpkin pies we've ever had. Sometime in the late 1980s LeRoy Souther brought the seeds to the Common Ground Fair where cucurbit aficionado John Navazio had a booth. More than 30 years before, a Livermore Falls neighbor, Harry Hurd, had given seeds to Souther. Supposedly, Long Pie originated on the Isle of St. George in the Azores, came to Nantucket on a whaling ship in 1832, and was at first known as the Nantucket Pumpkin as it migrated north to Maine. Long Pie looks like an overgrown zucchini to the uninitiated, but the telltale sign is an orange spot where the otherwise all-green 3-4 lb. elongated fruit rested on the ground. In storage, the whole fruit first blushes, then glows bright orange, signalling that the delicious flesh within is ready to be turned into incomparable pies. Seed grown in Maine without pesticides, herbicides or chemical fertilizers. ① A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $18.00, K=1lb, $65.00.

1868 Rouge Vif d'Étampes (105 days) *C. maxima* Open-pollinated. Also known as Cinderella. This spectacular French heirloom turns the pumpkin patch into a glowing blaze with its deeply ridged burnt-orange to red fruits. Pumpkins are flat, quite variable in size, ranging from about 7 lb. to upwards of 30 lb. and make great decorative Jack O'Lanterns. Kids are really intrigued by their color. Strictly speaking, this is a squash, not a pumpkin, and the coarse fibrous deep yellow flesh is not as flavorful as that of the pie pumpkins. Originated in France in the early 1800s, named for a town south of Paris. Introduced to the US by Burpee in 1883. ⑤ A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $50.00.

1880 Long Island Cheese (110 days) *C. moschata* These 6-12 lb. wide-ribbed flattened tan fruits look like big wheels of cheese. Called by Hedrick in *Cucurbits of New York* (1937) "one of the oldest varieties cultivated in America," a distinctive group which "have remained remarkably stable." Introduced to commerce in 1815 by McMahon. Paul Hauser, who brought the cheese pumpkin to our attention, insists there is no such variety as "Long Island" Cheese, the proper name is simply "Cheese." Probably got the Long Island moniker from its popularity in New York, New Jersey and on the island where Cheese used to be the preferred pumpkin for pies. Bright orange meat is coarse and quite fibrous, but its tender sweetness redeems its textural deficiencies and it does not deserve Hedrick's terse dismissal: "quality poor." Good for baking, deep cavity lends itself to stuffing. Although several references downplay its storability, we have found it to be a dependable producer and a good keeper. NEW! ③ A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00, K=1lb, $55.00.

1884 Lady Godiva (110 days) *C. pepo* We are pleased that Will Bonsall has produced a bountiful crop of these green-streaked pumpkins. The best naked-seeded pumpkin, its 8-12 lb. fruits are loaded with totally hulless plump seeds. I first made its acquaintance in the '70s in the Joseph Harris catalog, but have had trouble finding seed in recent years. Flesh is not of table quality. Do not sow before soil temperature reaches 60°. BACK! ① A=1/8oz, 80¢, ~13 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $65.00.

1892 Howden (115 days) *C. p.* Open-pollinated. For years Howden has set the standard by which large round Jack O'Lanterns are measured. Four years ago, after numerous customer requests, we finally found a quality seed source. Howden is more symmetrical than Connecticut Field (far less likely to set lopsided fruit), with hard ridged skin and thick flesh. Fruits typically weigh 20-35 lb, yet often are able to ripen fully in our climate. Tolerant to black rot. ② A=1/8oz, 80¢, ~16 seeds, B=1/4oz, $1.20, C=1/2oz, $1.80, D=1oz, $2.50, E=4oz, $6.00, K=1lb, $20.00.

Irrigation or Irritation

In the last several years I've come to the reluctant conclusion that every farmer or gardener needs some sort of an irrigation system. Here at Shooting Star Farm, with our water-retaining clay subsoil, cold soggy springs were far more prevalent than prolonged droughts, and I used to let nature take its course.

But all that has changed. Lacking electricity and running water, on a discontinued town road deep in rural central Maine, I could not opt for high-tech irrigation. Instead, my gardening buddy Richie Tory rigged up a simple device. We use a gas pump and gravity feed through garden hose to a dozen 30-gallon black plastic trash barrels, strategically located around the perimeter of our two gardens. In there, the water heats up, and then I dispense it via watering cans where needed.

This year we emptied and refilled the barrels at least a half dozen times in May and June and a couple more in August. We now routinely water newly-sown rows and tender shallow-rooted seedlings until we get well-established stands. Given that help, our crops thrived in the unaccustomed heat, and we had one of our three best years ever. At its nadir before Hurricane Floyd, the water level fell to within 4-5 feet of the bottom of my 22-foot spring-fed well, the lowest since 1978.

As I write on the morn of October 8 we just had our first killing frost. When I came here in 1972, we could expect to flirt with frost the first week of September. We used to plant peas the last week of April, now we need to be ready by April 10. We seldom used to sow warm-weather crops much before Memorial Day, now we target May 15 for first plantings of beans, squash and sweet corn, and late May as a safe time to set out tomato plants.

Gardening here used to be so simple. You planted all the sweet corn when it finally warmed up, and hoped you'd have long enough to ripen the prime quality late-season varieties. You stuck the tomatoes out by mid-June, praying for time enough to get a few ripe ones before September, but expecting to pick most of them green and ripen them inside. Now, with changed climate and better techniques, sweet corn has become a succession crop with an 8-week picking window; tomatoes and even melons must be staggered. Peppers won't set in July's heat and summer broccoli is problematic. We see things we never saw before: brussels sprouts opening wide and even suckering, dry beans dropping seed and resprouting seedlings before frost, winter squashes able to vine-ripen without coddling.

The weather changes require us to alter timing and techniques. We had to replant cilantro and greens trials twice because we didn't have our irrigation system ready in time. Next year we'll set it up in April. We will do more planting in trenches and less in raised beds. We'll pay more attention to the timing of lilac and apple blossoms and less to the date of the May and June full moons. We'll plant more crops for September/October ripening. Adjusting will ever be the name of the game.

Open-pollinated GAMBOLING GOURDS

We continue to add to our line of superior gourd varieties, grown in Hungary by Berkop and field-tested by Roberta Bailey, Donna Dyrek and me. Gourds come in two major categories (Luffa is a third). The small ones are *Cucurbita pepo* var. *ovifera* (same species as true pumpkins), also known as ornamental gourds for their variety of shapes, colors and surfaces. These vigorous viners will usually mature in our climate if direct-seeded. The larger ones are *Lagenaria siceraria* or hardshell gourds, named from the Greek *lagenos,* a flask, and *sicera*, an intoxicating drink. Lagenaria, though lacking the color range of their smaller cousins, fascinate with their magical shapes. Because of their long season they must be started indoors in our climate. To improve germination, sandpaper or clip off the radicle end and soak the seed. They resent transplanting and will grow slowly for a few weeks. Once they take off—wow! These rampant crawlers are noted for their large foliage, more velvety in texture than that of other cucurbits, and their malodorous large white almost luminous night-blooming flowers. Unless trellised they will take up huge amounts of garden space. They are heavy feeders. The Nov/Dec 1997 issue of *Organic Gardening* has a good article with tips on growing Lagenaria in short-season areas. Or see *The Complete Book of Gourd Craft* by Ginger Summit and Jim Widess, **#6518** in our book section. See also **#6832** for Cucuzzi.

1912 Small Ornamental Mix (95 days) *C. pepo* var. *ovifera* 8 kinds of early maturing types, with small spoon, bicolored pear, and small orange most prevalent. ② A=1/8oz, 80¢, ~72 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1938 Small Warted Mix (95 days) *C. p.* var. *ovifera* Pear-shaped, scalloped and round warted gourds in a variety of colors and markings, including greens, white-grey combos, and yellow-green combos. Baseball-sized. ② A=1/8oz, 80¢, ~57 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1952 Shenot Crown of Thorns (95 days) *C. p.* var. *ovifera* These small gourds have pointed ribs that look like teeth. Sometimes called Ten Commandments because the finger-like projections always number ten. Often called Ghost Gourd because of its white cream color and weird shape. Kids love to paint faces on their smooth surfaces for Halloween decorations. ② A=1/8oz, 80¢, ~71 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1954 Colored Crowns Mix (95 days) *C. p.* var. *ovifera* Like Shenot, has the ten pointed "toothed" ribs; unlike Shenot, comes in two green versions. One is green-tinted white, sporting flecked light green stripes between the ribs. The other has dark green stripes along the ribs, particularly at the tooth points, against a flecked light green background. The handsome small fruits weigh almost exactly 1 lb. ③ A=1/8oz, 80¢, ~70 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1962 Luffa (110 days) *Luffa ægyptiaca* May be more closely related to the cucumber than to the hardshell Lagenaria. Also known as the dishrag gourd, dried and used for making bath sponges. Andrea and Danny Morris of Amherst, MA, point out that Luffa is "very tasty and edible when picked young—great when pre-steamed then...panfried with onions, garlic and curry!" In addition to being a scrubber and a comestible this versatile gourd has been used to make soundproof wall boarding, to insulate army helmets, to stuff mattresses and saddles and even to make filters for steam engines and diesel motors! *Caution: Luffa requires a long season. Start indoors and culture like melons*. We recommend trellising if you want your luffas to remain straight. ③ A=1/8oz, 80¢, ~36 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1963 Apple (110 days) *Lagenaria siceraria* When Nikos and I oohed and aahed over a prime specimen on exhibit at Common Ground Fair we knew we wanted it in our catalog but didn't think it would happen so soon. Seed has been very hard to find, and we were quite fortunate in locating a limited quantity. Shaped just like a Red Delicious apple blown up to three times normal size, these gourds sit up on four points with dimples in between. Mostly green with some white splotches. Incredibly eye-catching. NEW! *Seed in short supply; order early.* ③ A=1/8oz, $1.50. *Not available in larger sizes.*

1964 Chinese Bottle (120 days) *L. s.* These big gleaming green gourds provided the most sublime moment of our 1997 trials. They just took my breath away at first sight with their productivity and graceful beauty. At our display at Common Ground Fair we were inundated with requests for seed. Never mind seed, many people just wanted to take the whole display home! 1' high fruits boast bottom bowl 8-9" in diameter with a stout neck (shorter than the regular bottle gourd) and small upper swelling. Very prolific fruit set; each plant *matures* 8 fruit on average, almost all of consistent good shape. ③ A=1/8oz, 80¢, ~20 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1966 Large Bottle (120 days) *L. s.* Beware, these vines are rampant crawlers. According to Massachusetts market grower Eva Sommaripa, this variety makes a better birdhouse than the birdhouse gourd. Eva suggests cutting a hole about the size of a quarter with a paring knife. Take out at least some of the innards. Wrap a wire for hanging around the indented waist, fasten a loop of non-rusting wire or nylon cord around a branch, and the wrens (or other species if you're too far north for wrens) will come. Don't hang gourds too close together, as these birds are territorial. Wrens usually nest twice a season, once in May and once in July, so you have two chances. If you take the gourd inside for the winter, it will probably last a second season. ②③ A=1/8oz, 80¢, ~48 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1968 Speckled Swan (120 days) *L. s.* Stole the show in our booth decoration at the 1998 Common Ground Fair; everybody who saw them wanted one. Beautiful surface is dark green with very pale green 1" splotches which bleed like strokes from a paintbrush. Large round 8-10" base tapers into graceful long neck, sometimes straight, sometimes arched, capped by a small bulb near the stem which looks like a swan's head. ③ A=1/8oz, 80¢, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1972 Corsican Canteen (125 days) *L. s.* Sets 3-6 fruits per plant, shaped like an old-fashioned canteen with height of 3 1/2" and a 7" diameter, some larger. Will make lovely lidded bowls. Originally from Native Americans in New Mexico. ③ A=1/8oz, 80¢, ~30 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1978 Siphon (125 days) *L. s.* With their small 5" bulged bottoms and long elegantly curved necks, these look like swans. The neck curls naturally if not grown on a trellis and can grow to an astounding 5' long. Grow around a broom handle to mold neck into a spiral. ③ A=1/8oz, 80¢, ~ 25 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1984 Maranka (130 days) *L. s.* Also known as Dinosaur Gourd. Squash grower Hollar calls them "one of the oddest of the Lagenaria." Maranka makes hard-shelled dark green 10-14" long shiny fruits with knobby protrusions or ridges. Graceful neck curves and tapers at the stem end, though will grow straight if supported. *Caution: Requires a longer season than most other Lagenaria, although I have seen beautiful specimens grown in Maine.* ③ A=1/8oz, 80¢, ~25 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

1990 Bushel (135 days) *L. s.* Shaped like a large bowl with a pot lid on it. Can grow enormous given sufficient heat, but in Maine will probably max out at 18" across. *Caution: requires a long season to mature*. To improve your chances limit each vine to one fruit. Prune to halt vine growth after it sets its first fruit. ③ A=1/8oz, 80¢, ~15 seeds, B=1/4oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $14.00.

Curing *Lagenaria* Gourds is Easy.

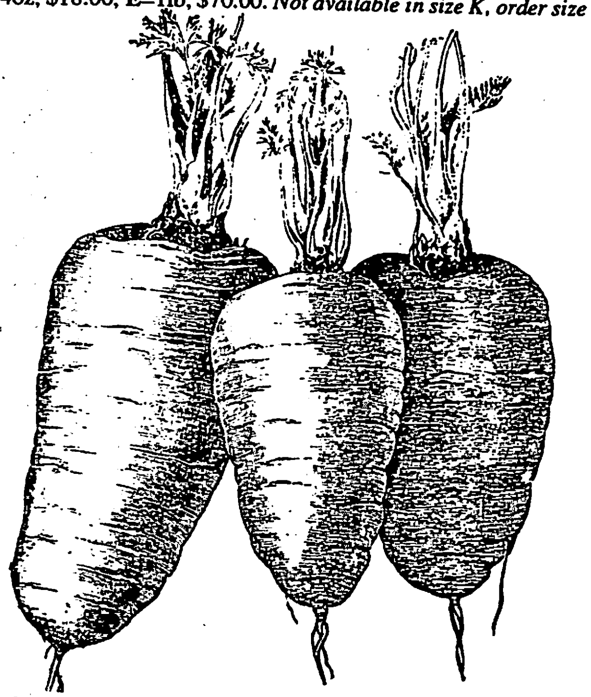
Hardshell gourds are 90% water at harvest. They need to be cured or dried, a slow process of evaporation through the outer shell, which is covered by a thin ivory-green skin. Curing can take 6 weeks to 1 year (average time 4 months) depending on gourd size, thickness of shell, weather and storage conditions.

Immature gourds (which have not developed a thick shell) will rot after harvest. Mature gourds are large and weighty. To cure, store off the ground in a well-ventilated room or unheated outbuilding. For a smooth beige surface, scrape off the outer skin after it loosens and darkens. (Freezing and thawing loosens the outer skin.) Outer skin, if left on, may become moldy; mold-patterned skin will dry to the gourd shell and can be sanded off, painted over or incorporated into the decoration.

CARROTS *Daucus carota*

1/8 oz packet sows 35 ft; 1 oz 280 ft. Carrots average 18,000 seeds/oz with significant variations among varieties. Very hardy. Early carrots can be sown by late April. Can take up to 3 weeks to germinate; keep rows from drying out for faster emergence. Sow carrots for winter storage in mid-late June. Thinning is critical: At 3" high thin to 1/2" apart, at 6" thin again to 1" apart. Fresh carrots are among the ten foods with the greatest increase in per capita consumption from 1978-1988. We now have separate spring and fall carrot plots in order to select varieties suitable for each season as most have a particular time when their flavor is best. Carrots are rich in the antioxidant beta-carotene. See also **6833 & 6834**.

2008 Thumbelina (52 days) Open-pollinated. This 1992 All-America winner from Petoseed was the best tasting and most uniform of the Parisian types in our trial. Parisian carrots are suitable for even the heaviest clay soils because they make round balls 1½" in diameter. They mature very early and are best harvested when they are young and tender. Cook them to bring out their delectable creamy texture. ⑤ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $5.00, D=4oz, $18.00, E=1lb, $70.00. *Not available in size K, order size E.*



2022 Minicor (55 days) Open-pollinated. If you prefer your first baby carrots of summer to be extremely slender roots with very small cores, choose Minicor. Amsterdam/baby Nantes-type boasts 6-7" roots with exceptionally sweet flavor. ⑤ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $3.00, D=4oz, $8.00, E=1lb, $28.00, K=5 lb, $125.00.

2042 Scarlet Nantes (68 days) Old-time favorite open-pollinated Nantes variety with bright orange roots averaging 6-7". ③⑤ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $3.00, D=4oz, $7.00, E=1lb, $14.00, K=5 lb, $50.00.

2050 Nantes Fancy (68 days) A classy open-pollinated Nantes. Roots 7" long with unusually good color, flavor. Very uniform. Excellent keeper. Has been our most popular carrot for years and last year was second only to Provider Beans in our entire catalog with 3,263 packets. Sales topped 100 lb. for the first time. ③ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $4.00, D=4oz, $14.00, E=1lb, $28.00, K=5 lb, $125.00.

2058 Red Cored Chantenay (70 days) According to William Woys Weaver (See #6579 *Heirloom Vegetable Gardening*), this venerable open-pollinated heirloom originated in France around 1879 and "needs no improvement." Produces 5-7" thick red-orange roots which we found to have excellent carroty flavor in our September taste tests. Does well in heavy soils like ours. The best exemplar of the growing interest in old time varieties: Sales *quintupled* between 1998 and 1999–from 17.7 to 85.3 lb! We reordered three times. ②③⑤ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $4.00, D=4oz, $7.00, E=1lb, $14.00, K=5 lb, $50.00.

2068 Canada Gold (73 days) F-1 hybrid. Don't be put off by its Imperator parentage. Gold gets its long tapered look from Imperator, but its rich flavor from the Nantes side of the family. You won't find a tastier carrot to come out of the ground in fall or out of the root cellar in winter. Gold is crisp and carroty with a slender uniform shape that fills to the tip. Its 9" roots can be hard to pull. ⑤ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $4.00, D=4oz, $14.00, E=1lb, $50.00. *Not available in size K, order size E.*

2076 Danvers 126 (75 days) Open-pollinated. This is a refinement of the Danvers Half-Long originated by market gardeners in Massachusetts in 1871. Danvers 126 is a tasty fall and storage carrot. Orange-red roots 7-7½" long, 2-2½" across taper to a blunt end. Salzer's offered an ounce of seed for a dime and a pound for a dollar in 1927. Seed organically grown. ③ A=1/8oz, 80¢, B=1/2oz, $2.50, C=1oz, $4.00, D=4oz, $10.00, E=1lb, $25.00, K=5 lb, $100.00.

2086-2098 All F-1 hybrids. 1 gram packet sows 10 ft.

2086 Mokum (48 days) Although we once dropped Mokum, we've since realized that its earliness, slenderness, and sweetness more than offset its flaws. Mokum won our summer taste tests in 1991, 1993 and 1994 and in September 1998 it again bested 14 other varieties—all but one by a wide margin. A blunt Amsterdam-type which sizes extremely quickly with short weak tops, it should be harvested before the roots push out of the ground and develop green shoulders. Although not a versatile full-season carrot, Mokum merits succession planting so you can enjoy it young throughout the summer. Always the first to disappear from our spring patch. ⑤ A=1g, 80¢, B=3g, $2.00, C=6g, $3.00, D=24g, $8.00, E=120g, $40.00.

2096 Nelson (56 days) A sweet, carroty Nantes that stays tender and crisp even in hot weather. Smooth and uniform, 6-7" cylindrical blunt roots with deep orange color have won the widespread endorsement of commercial growers and home gardeners. Strong tops make it suitable for summer bunching. Widely grown in Europe; the seed comes from Bejo in Holland. ⑤ A=1g, 80¢, B=3g, $2.00, C=6g, $3.00, D=24g, $8.00, E=120g, $40.00.

2097 Bolero (68 days) Nothing Spanish about this carrot except its name; actually developed in France where it is a popular choice for fall and storage crops. Won Garden City Seeds' Nantes taste test, and has rated highly at several of ours. We like its crispness and carroty flavor and enjoy its juice. Slightly tapered blunt smooth-skinned 8" roots of deep orange color. The first Nantes carrot with a high tolerance to Alternaria blight. Thanks to several customers who suggested it. ⑤NEW! A=1g, 80¢, B=3g, $2.00, C=6g, $3.00, D=24g, $8.00, E=120g, $40.00.

2098 Caroline (80 days) Winner of our 1996 fall carrot taste test, Caroline combines meaty Kuroda stock with sweet Chantenay. Sweet, but not crispy for eating out of hand. Although quite good raw, it requires cooking to bring out its full range of smooth-textured succulent creamy sweet flavor. Its blocky 7-8" roots with deep orange interior color make superb keepers. ④ A=1g, 80¢, B=3g, $2.00, C=6g, $3.00, D=24g, $8.00, E=120g, $40.00.

OTHER ROOTS

BEETS *Beta vulgaris*

1/8 oz packet sows 20 ft, 1 oz about 180 ft. Hardy. Can be sown almost as soon as ground can be worked. Thin for use as greens. Lutz variety must be thinned to 4" apart, others require less rigorous thinning. Beets and beet greens are great sources of potassium which helps keep blood pressure down and reduces risk of strokes. In *Garden Flowers from Seed* (#6558) Graham Rice suggests that the beetroot, especially red-leaved varieties such as Bull's Blood, be used as a bedding plant. He also waxes nostalgic for beet varieties with yellow veins and those with red, yellow, green or purple unmarked foliage which he says were around until at least the '50s. I say "let's find them and bring them back!"

2108 Early Wonder Tall Top (48 days) Open-pollinated. Selected for earliness from Crosby's Egyptian and introduced in 1911. Quick emergence in cold soil and attractive purple tops make this the one to grow for early beet greens and bunching beets. We topped 300 lb. in sales for the first time including 157 one-pounders and 16 five-pounders as well as 1,852 A and B size packets to home gardeners. ②③⑤ A=1/8oz, 60¢, ~270 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5 lb, $24.00.

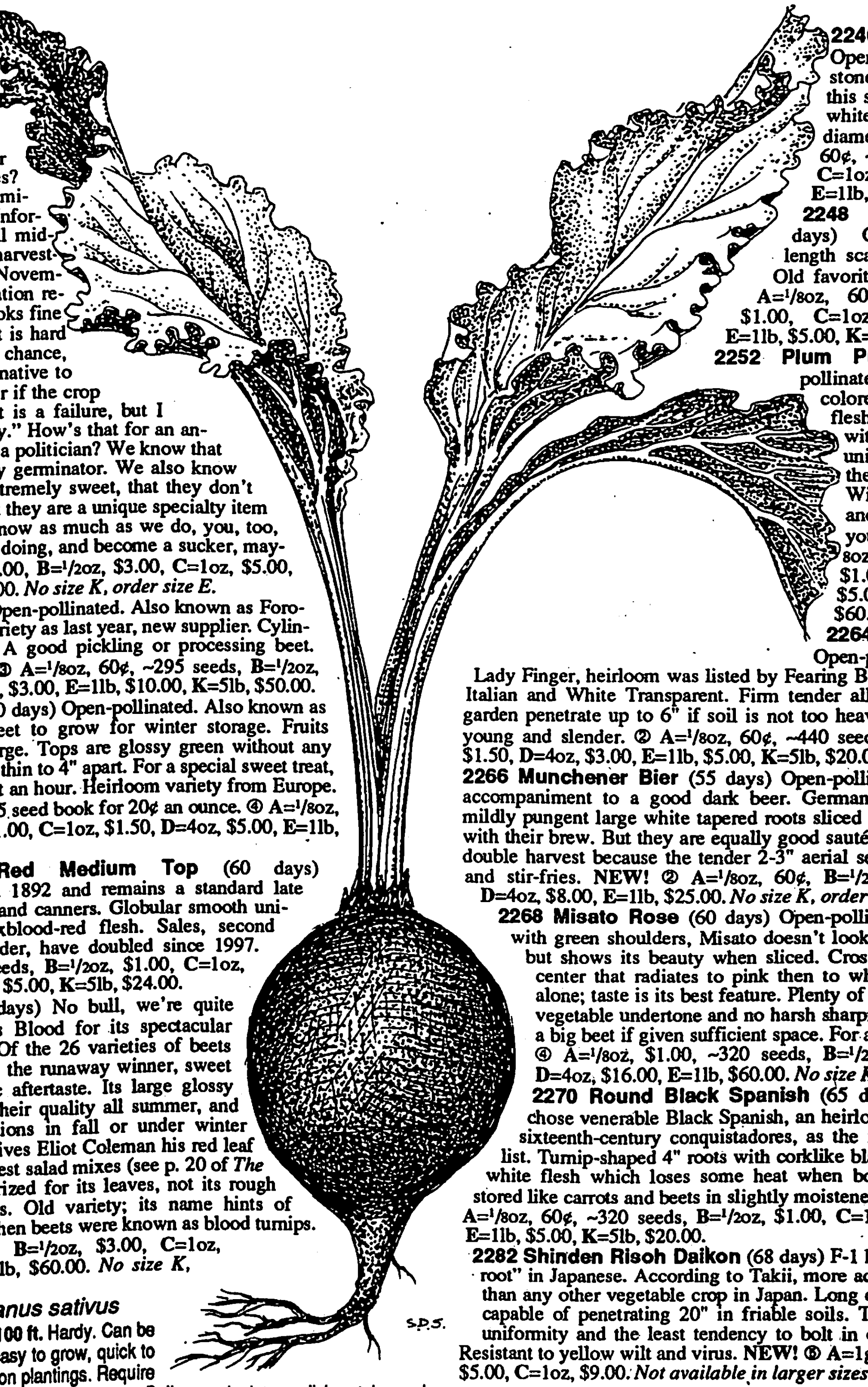
2109 Early Wonder Tall Top OG (48 days) Same as above; organic seed. ③ A=1/8oz, 60¢, ~270 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $6.00, E=1lb, $18.00. *No size K, order size E.*

2120 Red Ace (50 days) F-1 hybrid. Sweet early season beet. Market growers appreciate its uniformity and perfect shape. Very similar to Early Wonder but more refined. Purple tops. Tolerant to CLS. ④ A=1/8oz, 60¢, ~140 seeds, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $7.00, E=1lb, $25.00, K=5 lb, $120.00.

2136 Chioggia (55 days) Open-pollinated. Also known as Bassano, for the Venetian hill town in which it originated. Staffer Bernice Nadler's favorite because "in addition to having good sweet beet flavor, they are beautiful when sliced." This heirloom home garden type attracts attention in the kitchen with its alternating interior rings of pink and white. Noteworthy also for its light red exterior color, green tops and exceptional sweetness. ② A=1/8oz, 60¢, ~350 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $12.00, K=5 lb, $50.00.

Services for group orders:

1) We enclose forms for collating and pricing EZ orders. 2) We separate all orders over $300 by sections when we pull and package them. 3) Coordinators of large group orders please note: In exchange for 7% of your order total we will collate, pull, package and invoice your individual orders separately and make one shipment to you. Please call 207-873-7333 for more information.



2146 Burpee's Golden (55 days) P. T. Barnum once said that there's a sucker born every minute. Will Seminis be able to supply us seed for Burpee's Golden Beet this season after two successive crop failures? Let's ask Dan Crocker, Seminis' sales representative: "Unfortunately, I won't know until mid-November that the crop is harvested, and it will be the end of November before we have germination results. There is a crop that looks fine but with no seed in house it is hard for me to suggest you take a chance, considering there is no alternative to a golden beet that I can offer if the crop is a failure. I don't think it is a failure, but I can't say with great certainty." How's that for an answer that would do credit to a politician? We know that Golden beet is a persnickety germinator. We also know that the golden roots are extremely sweet, that they don't bleed like red beets, and that they are a unique specialty item in markets. Now that you know as much as we do, you, too, can take a chance as we are doing, and become a sucker, maybe. BACK? ⑤ A=1/8oz, $1.00, B=1/2oz, $3.00, C=1oz, $5.00, D=4oz, $16.00, E=1lb, $60.00. *No size K, order size E.*

2156 Cylindra (56 days) Open-pollinated. Also known as Forono and Formanova. Same variety as last year, new supplier. Cylindrical beet grows 6" long. A good pickling or processing beet. Heirloom from the 1880s. ③ A=1/8oz, 60¢, ~295 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $10.00, K=5lb, $50.00.

2170 Lutz Green Leaf (60 days) Open-pollinated. Also known as Winter Keeper, the best beet to grow for winter storage. Fruits remain sweet even when large. Tops are glossy green without any purple. For good-sized roots thin to 4" apart. For a special sweet treat, try baking big ones for about an hour. Heirloom variety from Europe. Available from Maule's 1935 seed book for 20¢ an ounce. ④ A=1/8oz, 60¢, ~195 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $5.00, E=1lb, $15.00, K=5lb, $70.00.

2182 Detroit Dark Red Medium Top (60 days) Open-pollinated. Introduced 1892 and remains a standard late variety for home gardeners and canners. Globular smooth uniform roots with tender oxblood-red flesh. Sales, second among beets to Early Wonder, have doubled since 1997. ③⑤ A=1/8oz, 60¢, ~295 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $24.00.

2186 Bull's Blood (60 days) No bull, we're quite sanguine you'll love Bull's Blood for its spectacular superb-tasting beet greens. Of the 26 varieties of beets we trialed for greens, it was the runaway winner, sweet with never a hint of oxalic aftertaste. Its large glossy reddish-purple leaves hold their quality all summer, and intensify under cool conditions in fall or under winter greenhouses. Bull's Blood gives Eliot Coleman his red leaf of choice for his winter harvest salad mixes (see p. 20 of *The Winter Harvest Manual*). Prized for its leaves, not its rough flattened globe-shaped roots. Old variety; its name hints of nineteenth century origins when beets were known as blood turnips. NEW! ③ A=1/8oz, $1.00, B=1/2oz, $3.00, C=1oz, $5.00, D=4oz, $16.00, E=1lb, $60.00. *No size K, order size E.*

RADISHES *Raphanus sativus*

1/8 oz packet sows 15 ft, 1 oz 100 ft. Hardy. Can be sown early. Summer radishes easy to grow, quick to ripen and go by; make succession plantings. Require thinning to at least 2" for attractive uniform roots. Daikon and winter radishes take longer to mature, hold longer, require only 1 planting and need to be thinned to 6" apart. Pinch the tops if winter radishes start to bolt to seed.

2214 Cherry Belle (25 days) Open-pollinated. A good smooth red-skinned bunching radish making uniform balls 3/4" across with firm white flesh. 1949 AAS. ③ A=1/8oz, 60¢, ~700 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2224 Easter Egg (25 days) Open-pollinated. Kids love this fascinating radish which comes in shades of pink, purple, red, violet and white. Good even when large. Our most popular radish. ④ A=1/8oz, 60¢, ~320 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $5.00, E=1lb, $15.00, K=5lb, $60.00.

2234 Champion (25 days) Open-pollinated. Smooth scarlet roots with firm mild flesh grow quickly to edible size. 1957 AAS. ②③ A=1/8oz, 60¢, ~320 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2240 Hailstone (25 days) Open-pollinated. The only hailstone you'll want in your garden this summer. A crisp round juicy white radish, not very hot. 1" in diameter. Holds well. ③ A=1/8oz, 60¢, ~400 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2248 French Breakfast (26 days) Open-pollinated. Medium-length scarlet root with a white tip. Old favorite from Europe in 1879. ③ A=1/8oz, 60¢, ~500 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2252 Plum Purple (26 days) Open-pollinated. This lovely round plum-colored root with crisp white flesh has a good sweet taste with only a little heat. Very uniform, true to color, almost the size of a ping-pong ball. With Plum Purple, Hailstone and Champion, you can make your own tricolor mix. ④ A=1/8oz, 60¢, ~500 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $5.00, E=1lb, $15.00, K=5lb, $60.00.

2264 White Icicle (30 days) Open-pollinated. Also known as Lady Finger, heirloom was listed by Fearing Burr as White Naples, White Italian and White Transparent. Firm tender all-white roots for the home garden penetrate up to 6" if soil is not too heavy. Mild if harvested when young and slender. ② A=1/8oz, 60¢, ~440 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2266 Munchener Bier (55 days) Open-pollinated. Here is the perfect accompaniment to a good dark beer. Germans traditionally serve these mildly pungent large white tapered roots sliced thin and salted to go down with their brew. But they are equally good sautéed and then salted. Gives a double harvest because the tender 2-3" aerial seedpods are good in salads and stir-fries. NEW! ② A=1/8oz, 60¢, B=1/2oz, $1.50, C=1oz, $2.50, D=4oz, $8.00, E=1lb, $25.00. *No size K, order size E.*

2268 Misato Rose (60 days) Open-pollinated. A big white radish with green shoulders, Misato doesn't look like much on the outside, but shows its beauty when sliced. Cross-sections have a rosy red center that radiates to pink then to white. Worthwhile for looks alone; taste is its best feature. Plenty of spiciness with a rich sweet vegetable undertone and no harsh sharpness. Will grow as large as a big beet if given sufficient space. For autumn crops, good keeper. ④ A=1/8oz, $1.00, ~320 seeds, B=1/2oz, $3.00, C=1oz, $5.00, D=4oz, $16.00, E=1lb, $60.00. *No size K, order size E.*

2270 Round Black Spanish (65 days) Open-pollinated. We chose venerable Black Spanish, an heirloom some trace back to the sixteenth-century conquistadores, as the first winter radish for our list. Turnip-shaped 4" roots with corklike black exteriors have pungent white flesh which loses some heat when boiled or stir-fried. Can be stored like carrots and beets in slightly moistened sand in the root cellar. ③ A=1/8oz, 60¢, ~320 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2282 Shinden Risoh Daikon (68 days) F-1 hybrid. *Daikon* means "big root" in Japanese. According to Takii, more acreage is planted to daikon than any other vegetable crop in Japan. Long cylindical 2½ lb. roots are capable of penetrating 20" in friable soils. This type showed the best uniformity and the least tendency to bolt in our trial. Replaces Omny. Resistant to yellow wilt and virus. NEW! ⑤ A=1g, 50¢, ~80 seeds, B=1/2oz, $5.00, C=1oz, $9.00. *Not available in larger sizes.*

Fedco Seeds' substitution policy

We ask you on your order form whether you will accept substitutions and we abide by your wishes. By checking "yes" you will reduce the probabilities of getting out-of-stocked. We follow very conservative substitution guidelines:

- We substitute only extremely similar varieties of comparable maturity date.
- We never substitute hybrids for open-pollinated varieties or vice versa.
- We never substitute tall varieties for dwarfs or vice versa.
- We never substitute green for red varieties or vice versa.
- We never substitute a cheaper for a more expensive variety.

If you wish to give us more latitude or have specific substitution requests, please make a note on your order.

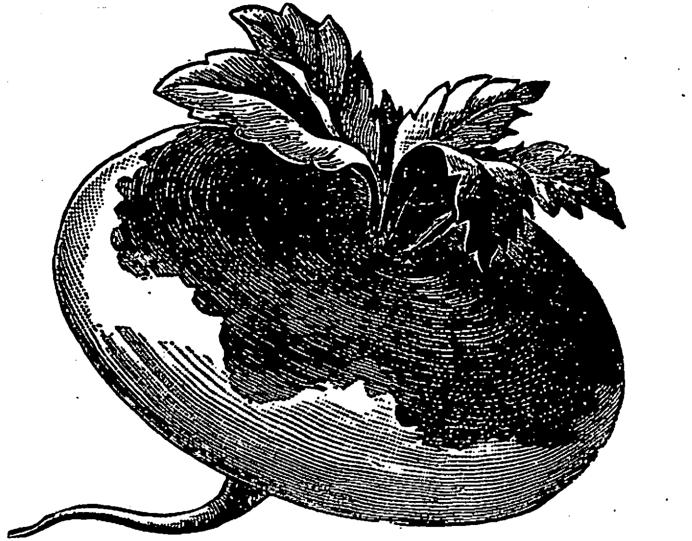
PARSNIPS *Pastinaca sativa*

1/8 oz packet sows 25 ft, 1 oz about 200 ft. One of the best for grating and stuffing into eggrolls, strudels and veggie pies. Harvest some after frost for late fall delights. The remainder will taste even sweeter in the spring after overwintering! Seed is short-lived; if you are planning to use old seed, germ test in paper towels before sowing. All open-pollinated.. See also **6838.**

2310 Harris Model (120 days) Sweet-flavored smooth tapered roots average 10". For better performance, prepare raised beds, especially in heavy soils. Don't believe stories that this strain is running down. It looked great in our 1996 trials. ②③ A=1/8oz, 60¢, ~800 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $24.00.

SCORZONERA *S. hispanica*

2322 Lange Jan (120 days) Open-pollinated. This long narrow dark-skinned white-fleshed root has an unprepossessing appearance, yet is prized by gourmet cooks in Europe who call it the oyster plant for its distinctive flavor and use it in place of the potato in *haute cuisine*. *Scorzonera* derives from the Spanish *corteza negra* or "black bark." Has a firm delightful texture almost like pudding, but is not sweet like many root vegetables. Much of the flavor resides in the dark skin which should not be peeled before cooking. Culture like parsnips, overwintering in the field and pulling as needed. Tastes better after a hard frost. Has only limited storage in root cellars. Seed is short-lived; germ test old seed in paper towels before using. NEW! ⑤ A=1/8oz, 60¢, ~250 seeds, B=1/2oz, $2.00, C=1oz, $4.00, D=4oz, $10.00, E=1lb, $30.00. *No size K, order size E.*



RUTABAGAS & TURNIPS

1/8 oz packet sows almost 40 ft, 1 oz about 400 ft. Hardy members of Crucifer family. Thinning is critical for full-sized roots. All open-pollinated.

2358 Laurentian Rutabaga (95 days) *Brassica napus* Popular Canadian variety with deep purple crown and cream yellow base. Uniform 5-6" almost neckless roots suitable for winter storage, larger and sweeter than American Purple Top, which it replaced. Pale yellow flesh has refined texture and taste. ④ A=1/8oz, 60¢, ~1120 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $10.00, K=5lb, $40.00.

2372 White Egg Turnip (45 days) *B. rapa* A clear-white smooth ovoid turnip about the size of a goose egg. Fine-grained crisp sweet juicy flesh has excellent flavor, so mild it can be eaten raw fresh from the garden. Good keeper; flavor intensifies in storage. Popular through most of the 19th century; offered by Gregory in 1918 for 75¢ a lb., who claimed yields of 600 bushels to the acre. Good for early market bunching before they attain full size. At maturity, crowns push out of the ground and take on a green tint. NEW! ③ A=1/8oz, 60¢, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2378 Purple Top White Globe Turnip (50 days) *B. r.* Popular variety with purple tops, white bottoms and white flesh. An heirloom from before 1880. ③ A=1/8oz, 60¢, ~1,750 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $5.00, K=5lb, $20.00.

2392 Gilfeather® Turnip (85 days) *B. n.* Has come down in folklore as a turnip but belongs with the rutabagas. Heirloom variety either developed or discovered by John Gilfeather (1865-1944) of Wardsboro,VT, in the late 1800s. Gilfeather, a lanky secretive man, is said to have cut the tops and bottoms off his turnips so that no one else could propagate them. Nevertheless, some seeds escaped to a neighbor who gave them to market growers William and Mary Lou Schmidt, who salvaged, then commercialized the variety. Gilfeather is sweeter and later to mature than other turnips, and not woody even at softball size. The white flesh tastes better after frost. Doug Wittmer of Upton, MA, called it "the best-tasting turnip I've ever grown." He also had high praise for the greens, which he described as "tender, mild and lacking spines." Packet sows almost 20'. *Order early; seed in short supply.* ① A=1g, $1.00, ~500 seeds. *Not available in larger sizes.*

ALIMENTARY ALLIA *Allium* spp.

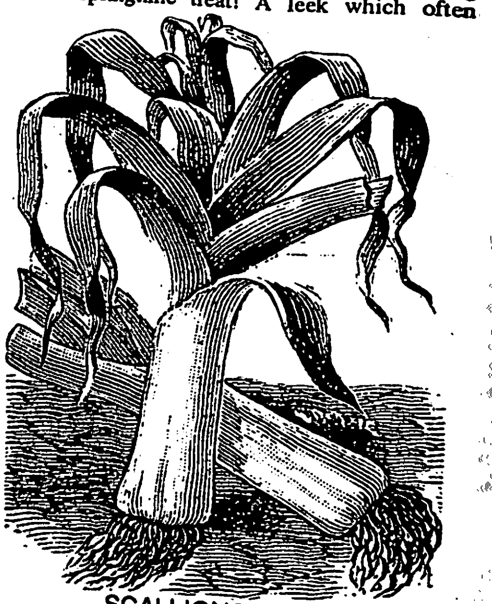
1/16 oz packet about 450-600 seeds, 1 oz 7,000-10,000. Start indoors in **Feb.** or March (April is too late for good-sized roots) and transplant out in May. Set leeks 6-12" apart, onions 4-6," scallions 3-4". Seedlings require irrigation in dry springs. Harvest onions after tops fall, field cure about 10 days. Onions survive light frosts. Per capita consumption of onions has increased 55% since 1981 to 16.7 lb. According to the National Cancer Institute, increasing consumption of alliums lowers the risk of stomach cancer. Leeks have become a mainstay in our kitchens throughout the fall. Early leeks have tall shanks above ground and should be harvested before severe frosts. Hardier leeks have broader, shorter shanks and will hold till November. Siegfried, our hardiest leek, will withstand our severe winters provided it is hilled and mulched. Leeks brought into the root cellar will survive almost the entire winter if heeled into dirt. See also **6842.**

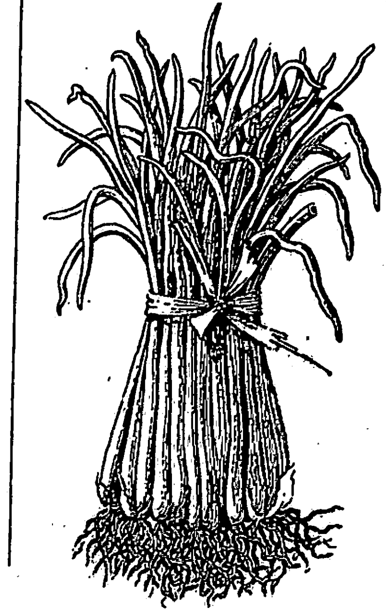
LEEKS *A. ampeloprasum* (porrum group) **all open-pollinated**

2406 King Richard (75 days) King Richard is noted for its elegant long thick delicately flavored stalks. It is ready in late August, will withstand light frosts, but should be harvested before the really cold nights. Using the Ruth Stout permanent mulch method, Massachusetts grower Claire DeLoid grew King Richards taller than she! ③ A=1/16oz, 80¢, ~435 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

2414 Imperial (85 days) This beautiful Danish leek attracts our attention in September. Its shaft combines impressive stoutness with good length, for a large edible area on each plant. It is rated by our supplier as a medium-early autumn leek. It holds for us until mid-October when the nights get really frosty. ③ A=1/16oz, 80¢, ~500 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

2426 Siegfried (120 days) Cometh April, the snows recede, give way to mud, the squashes turn to squish, potatoes have eyes not for your stomach, the pleasures of stored root and cole crops pale and you crave something fresh. Here's a truly delectable springtime treat! A leek which often withstands the rigors of winter and awaits your springtime appetite. Siegfried makes most of the growth that matters below ground where it is protected from the cold. You will get about 4 inches of thick stalk. After you peel off the outer layers you will most likely find Siegfried looks as good as any fall leek. Although most will survive winters with good snow cover, they are vulnerable when periods of alternate freezing and thawing heave up the roots. We suggest hilling your leeks and mulching after the ground freezes to improve your odds. ③ A=1/16oz, 80¢, ~350 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.





SCALLIONS *A. fistulosum* all open-pollinated

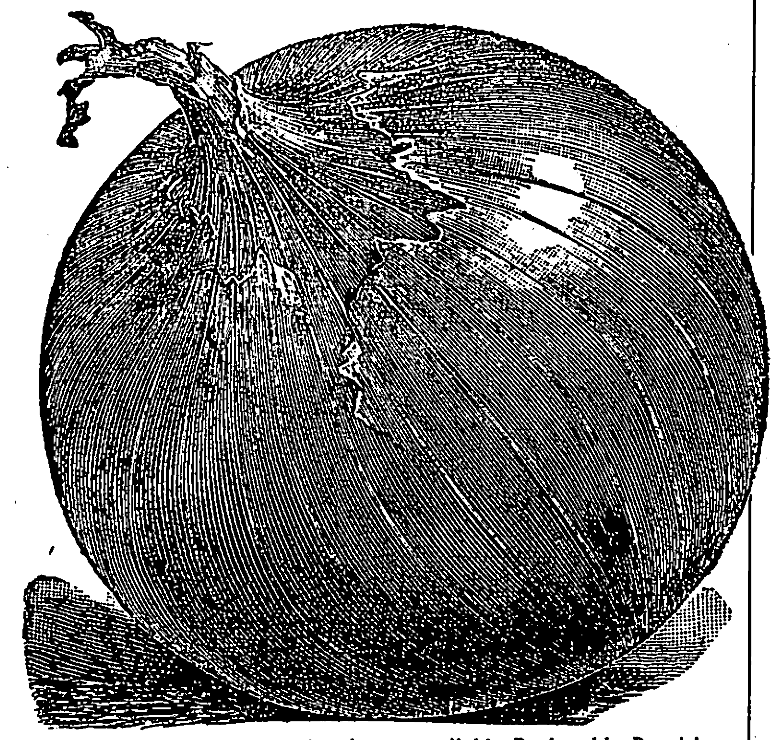
2432 Red Beard (60 days) A vigorous crispy colorful scallion from Japan. Outer shaft develops bright red color in cool weather. Underneath flesh is white. In hot dry conditions some scallions do not develop red color and others get only a thin layer of light red. ⑤ A=1/16oz, 80¢, ~840 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

2438 Evergreen Hardy White (65 days) Also known as Nebuka, a perennial bunching onion. If overwintered in the ground, develops clumps of scallions in the spring which can be harvested or divided and replanted. One of the first fresh foods in April—a welcome treat. Heirloom from Japan originated in the 1880s. ③ A=1/16oz, 80¢, ~575 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $7.00, K=1lb, $25.00.

ONIONS *A. cepa*

2444 Crystal White Wax (70 days) Open-pollinated. These 1 1/2" pearly white bulbs ripen around the same time as peas for early summer baby onions or pickles. ③ A=1/16oz, 80¢, ~850 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $7.00, K=1lb, $25.00.

2450 New York Early (98 days) Open-pollinated. A superior strain of Early Yellow Globe selected for storage until early spring and maintained by Orange County, NY, commercial onion growers. Very firm mild yellow onions may be eaten raw in salads or on sandwiches. They average 2 1/2-3" across, and store longer than Early Yellow Globe. ② A=1/16oz, 80¢, ~385 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $7.00, K=1lb, $25.00.



2464 Redman (101 days) *Seed no longer available. Replaced by Bennie's Red.*

2468 Cherokee Red (102 days) Open-pollinated flat red storage onion that will keep till March. The 3-4" globes were mature Sept. 1 in our trial. Firm, with dark red skin all the way through. Replaces Southport Red Globe which is no longer available. NEW! ③ A=1/16oz, 80¢, ~385 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $7.00, K=1lb, $25.00.

2470 Candy (102 days) F-1 hybrid. Candy is unusual in being adaptable in all parts of the country because it is a cross between a long-day onion and a short-day onion. In our region that means Candy should be planted in spring, harvested in fall and will store all winter like a long-day onion, while retaining the typical mild sweet flavor of a short-day onion. Candy's perfectly round globes have small necks, beautiful golden-brown color, thinner skin than Copra and attractive white flesh. They grow to jumbo size, slightly larger than Copra, yet usually make single centers. The breeders at Seminis hope Candy will be the "Better Boy" of onions, winning widespread acceptance among home gardeners. NEW! ⑤ A=1/16oz, 80¢, B=1/8oz, $1.50, C=1/2oz, $6.00, D=1oz, $12.00, E=4oz, $40.00, K=1lb, $160.00

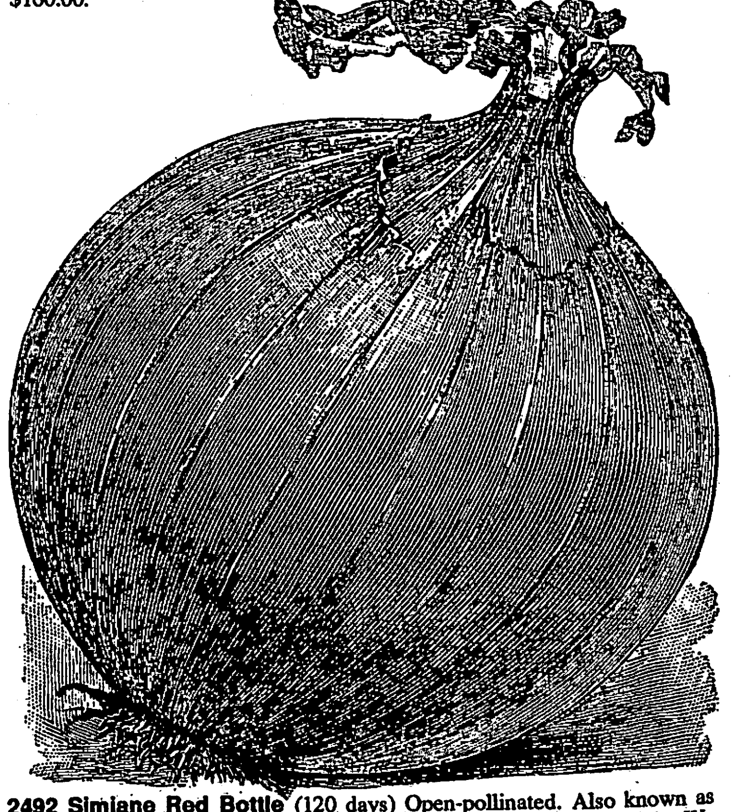
2472 Copra (104 days) F-1 hybrid. Hard medium-sized storage onions with blocky round shapes and thin necks. The best storage onion. *Unfortunately, there is again a severe crop shortage. We got less than half our order. Limit one half oz. per customer. Order early; we expect to be sold out by Jan. 20.* ⑤ A=1/16oz, 80¢, ~445 seeds, B=1/8oz, $1.50, C=1/2oz, $5.00. *Not available in larger sizes.*

2477 Borrettana Cipollini (105 days) Open-pollinated. Italian heirloom makes the quintessential boiling and braising onion. Shaped like a button, up to 4" wide (normally 3") but less than 1" thick. Flattened spheres with shiny golden skin slightly brighter than Copra's. Fine-grained flesh has a very mild yet well-developed flavor. Appreciated in soups, stir-fries and shish kebab. They braid beautifully and keep till late winter. NEW! ② A=1/16oz, 80¢, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $16.00, K=1lb, $60.00.

2478 Bennie's Red (105 days) Open-pollinated. Earlier and larger than most early red onions. Deep burgundy-red skin with red interior rings after curing. Needs 4" spacing for best performance. Keeps until late winter, longer than Southport Red and on a par with Redman which it replaces. Last offered by Fedco in 1992. **BACK!** ③ A=1/16oz, 80¢, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00, E=4oz, $7.00, K=1lb, $25.00.

2480 Torque (106 days) F-1 hybrid. Don't get all torqued-up about the Copra shortage. We have plenty of Torque seed to supplement our short supply of Copra. Torque comes highly recommended by Donna Dyrek, one of two varieties from past trials she grew again on her own in 1999. Compares well with Copra, maturing around the same time and producing very hard round yellow globes of about the same size. Donna has stored them thru winter and spring until August! Adapted to Minnesota, Wisconsin and Canadian mucks; performs well in New England. Tolerant to PR and FBR. *Note: Copra will be sold out early, for orders after Jan. 20 we recommend Torque.* NEW! ② A=1/16oz, 80¢, ~385 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

2484 Ailsa Craig (110 days) Open-pollinated. How much potential energy in a seed? Jason Kafka of Checkerberry Farm in Parkman grew 8,000 lbs. of onions from 1 1/2 oz. of Ailsa Craig seed in 1997. That's a multiplication of better than 80,000 to one! We're not exaggerating when we talk about 1 1/2-3 lb. onions from this variety—Jason grew hundreds in that range. This is the onion to grow to enter in the Exhibition Hall of your county fair. The enormous slightly oval pale straw-colored globes are sweet, mildly pungent and will store a short while. Heirloom from England was listed in a few stateside catalogs early in the century. ⑤ A=1/16oz, 80¢, ~400 seeds, B=1/8oz, $1.50, C=1/2oz, $6.00, D=1oz, $10.00, E=4oz, $40.00, K=1lb, $160.00.



2492 Simiane Red Bottle (120 days) Open-pollinated. Also known as Torpedo Onion; attracted our attention several years ago in the trials. We found seed in France where it is popular in the south. This sweet onion's bulb has a unique elongated shape. With bright purple-red color fading towards white in the center, the flesh is soft and sweet, best used fresh and good enough to be eaten raw. In most years, the 2x4" bulb doesn't quite "finish" in northern climes. ③ A=1/16oz, 80¢, ~425 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $5.00, E=4oz, $20.00, K=1lb, $75.00.

2497 Walla Walla Sweet Spanish (125 days) Open-pollinated. This onion became famous in the Pacific Northwest for its juicy sweet flavor. In the warm climate of Walla Walla, Washington, it can be wintered over. In our harsher climate, it must be sown in the spring for fall harvest. Large onions are known for their mild flavor as soon as they come out of the ground. They will not store. ① A=1/16oz, 80¢, ~435 seeds, B=1/8oz, $1.50, C=1/2oz, $2.50, D=1oz, $4.00. *Not available in larger sizes.*

SPINACH *Spinacia oleracea*

Packet sows 45 ft, 1 oz plants 150-200 ft. Very hardy. Must be planted as soon as the ground can be worked in the spring to avoid early bolting. For fall crop try late Jul-Aug sowing; to overwinter, sow late Aug-Sept. Heavy nitrogen requirements, but avoid applying high-nitrogen fertilizers shortly before harvest to prevent high nitrate levels in the leaves. Hint: Pick large leaves often for heavier production. Spinach is rich in folic acid which may play an important role in preventing heart disease, strokes and reducing birth defects. Spinach and beet greens are rich in magnesium which may help protect against high blood pressure and diabetes.

2512 Olympia (38 days) F-1 hybrid. Spinach breeder John Navazio, in trying to get out the word that spinach performs best as a fall crop, invited us to take part in a fall trial. On Aug. 6 we sowed 6 varieties, including Indian Summer, Long Standing Bloomsdale and Tyee. Fast-growing Olympia was the clear winner, producing enormous yields of mostly smooth leaves up to 5x6". Olympia is almost entirely lacking in that oxalic acid taste that burdens some varieties; its mild flavor goes down easy. Not recommended for spring planting when it bolts quickly. Resistant to DM 1,2,3. Replaces Residane. NEW! ④ A=1/4oz, 60¢, B=1/2oz, $1.00, C=1oz, $1.80, D=4oz, $4.00, E=1lb, $9.00, K=5lb, $40.00.

2516 Indian Summer (39 days) F-1 hybrid. A high-yielding dark-green spinach with partly crinkled leaves. Seems to require warmer soil than Long Standing Bloomsdale, but is much more bolt-resistant in warm weather. Resistant to DM1 & 2. ⑤ A=1/4oz, 60¢, ~350 seeds, B=1/2oz, $1.00, C=1oz, $1.80, D=4oz, $4.00, E=1lb, $9.00, K=5lb, $40.00.

2540 Long Standing Bloomsdale (42 days) Open-pollinated. The standard crinkled-leaf spinach. Very good cold soil emergence. Recent hybrids surpass it in production and bolt resistance. David Landreth, founder of the Landreth Seed Company, since 1784 the oldest continuous seed dealership in the US, developed the original Bloomsdale Spinach, forerunner of this type. This strain came from Europe in 1925. Burpee sold it for a dime a packet and 35¢ per ounce in 1955. ③ A=1/4oz, 60¢, ~350 seeds, B=1/2oz, $1.00, C=1oz, $1.50, D=4oz, $3.00, E=1lb, $4.00, K=5lb, $18.00.

2550 Tyee (44 days) F-1 hybrid. Tyee has long been our favorite crinkled-leaf spinach. Still the only dependable variety we have found for years when spring is abbreviated and the heat comes on fast. Tyee outperforms other savoyed types both in yields and ability to stand without bolting. Upright habit. ④ A=1/4oz, 60¢, ~350 seeds, B=1/2oz, $1.00, C=1oz, $1.80, D=4oz, $4.00, E=1lb, $9.00, K=5lb, $40.00.

2555 Giant Winter (45 days) Open-pollinated. Selected as a replacement for Winter Bloomsdale for its cold hardiness. Recommended for late fall crops, winter greenhouse crops, or overwintering under mulch. Large medium green semi-savoyed leaves. NEW! ② A=1/4oz, $1.00, B=1/2oz, $2.00, C=1oz, $3.00, D=4oz, $8.00, E=1lb, $25.00. *No size K, order size E.*

2592 New Zealand Spinach (52 days) *Tetragonia tetragonioides* Open-pollinated. So named because it was discovered in Queen Charlotte's Sound, New Zealand, during the 1770 voyage of Captain Cook. But don't be fooled by the second part of the name; this is not a true spinach. Doesn't look like one or taste like one, though some find it an acceptable substitute because it stands through the hot summer when regular spinach bolts. Will withstand frosts down to the low 20s. Nut-like seeds are customarily slow poor germinators, will be quicker if you soak them before sowing. Be patient and don't give up too soon. Only a few plants are needed to fill in your patch because Tetragonia sprawls. ③ A=1/4oz, 60¢, ~88 seeds, B=1/2oz, $1.00, C=1oz, $1.80, D=4oz, $4.00, E=1lb, $9.00, K=5lb, $40.00.

EXOTIC GREENS

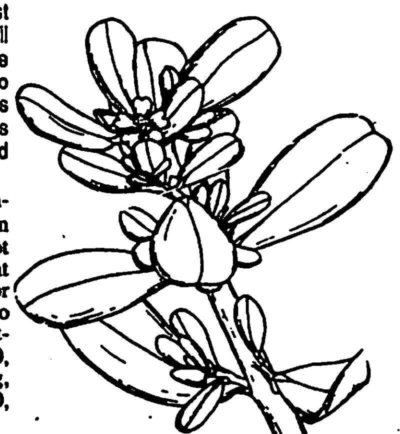
CLAYTONIA *Montia perfoliata*

Direct seed in spring, 24 per ft. Thin to 3" apart. Responds to cut-and-come-again culture and tolerates moderate frosts. For best quality, make at least one succession planting.

2610 Claytonia (40 days) Open-pollinated. Also known as Winter Purslane and Miner's Lettuce, it was the '49ers green of choice. Claytonia's small heart-shaped leaves have a mild but succulent taste which we have found increasingly attractive. We now add it regularly to our mesclun. ①③ A=1/2g, $1.20, ~800 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $7.00, E=16g, $12.00, K=32g, $20.00. 45,000 seeds/oz.

PURSLANE *Portulaca oleracea* var. *sativa*

Direct seed in spring, after danger of frost is past. Thin to 5" apart. Can be cut; will regenerate. Doesn't tolerate frost. We recommend a succession planting to maximize tenderness. Purslane leaves have more vitamin C than spinach leaves and are rich in omega-3 fatty acids and antioxidants.



2636 Goldgelber (50 days) Open-pollinated. Related to the common garden weed, but more erect and not crawly. Goldgelber has a succulent texture with a mildly acerbic flavor which makes it an ideal addition to mesclun. Golden-green leaves patterned like a cross. ④ A=1/2g, $1.20, ~1200 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $5.00, E=16g, $7.00, K=32g, $12.00, 70,000 seeds/oz.

CHICORIES

2652 Pan di Zucchero Chicory (80 days) *Cichorium intybus* The name means "sugar loaf" in Italian. Open-pollinated heirloom. If you associate chicory with bitterness Pan di Zucchero will surprise you. It stood out from the four dozen others in chicory expert Lucie Arbuthnot's fields. In her kitchen, it was delicious. Its 1' tall large, tight light green leaves are shaped like a romaine lettuce crossed with a napa cabbage. High yielding, best as a fall crop. Will store well for three months and survive for four if you wrap it tightly in slightly damp newspaper and keep it in a cold (just above freezing) spot. Lucie compares it to witloof chicory, but without all the extra work. ② A=1/2g, $1.20, ~500 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $7.00, E=16g, $12.00, K=32g, $20.00.

2654 Della Catalogna or Radichetta (49 days) *Lactuca sativa* Open-pollinated. Is it a dandelion, a chicory or a lettuce? We had quite a correspondence before finding out from the Italian supplier that it *is* a lettuce. Its bluish color attracted attention in our trials. Heavy-textured serrated leaves somewhat resemble dandelions, and taste agreeably bitter, more like escarole than lettuce. Lettuce or not, it should be used like chicory or Italian dandelion. Italians customarily chop the leaves, steam them and sauté them in olive oil. ② A=1/2g, $1.20, ~305 seeds, B=1g, $2.00, C=2g, $2.50, D=8g, $4.00, E=16g, $6.00, K=32g, $10.00.

RADICCHIO *Cichorium intybus*

These radicchios are easy to raise from transplants although they have not yet been refined to absolute uniformity. Occasional plants still bolt unpredictably. If you try direct-seeding, watch out for voracious flea beetles. Culture like lettuce; do not allow to dry out. They are mature when heads form in the center. Do not eat the bitter outer leaves. The edible centers are an acquired taste, retaining some bitterness, wonderful in salad or braised. Even if you don't like to eat radicchio, consider growing it as an ornamental. Fall crops make the largest heads. Very tolerant of fall frosts. Ours gallantly stood consecutive nights in the low twenties without apparent damage. We worked extensively with radicchio at Bambi Jones' trial and at Shooting Star Farm, selecting these three outstanding performers.

2662 Palla di Fuoco Rossa (65 days) Open-pollinated round-headed Chioggia-type from Italy. Palla di Fuoco impressed us with its deep burgundy heads which matured earlier and with better uniformity than Augusto. Its name means pale red fire. *Fuoco* also signifies passion, or (as a verb) to focus. A radicchio to focus your passion on! ② A=1/2g, $1.20, ~350 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $7.00, E=16g, $12.00, K=32g, $20.00. 20,000 seeds/oz.

2674 Firebird (70 days) F-1 hybrid. The *sine qua non* of radicchio, an elite strain sure to please the most demanding markets. Firebird was the best in our extensive trial, with deeper color, better uniformity and larger size (4") than any other heading type. Tight vibrant red heads with white midribs and green outer leaves. For summer production. Pelleted seed. ⑤ A= 1/2g, $1.20 ~14 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $7.00, E=16g, $12.00, K=32g, $20.00.

2684 Radicchio di Treviso (80 days) An open-pollinated radicchio from Italy which is shaped almost like a small romaine lettuce. Turns from green to variegated dark burgundy with lovely white veining as the nights grow cold. As its narrow leaves bunch like a romaine, you can bind them with a ribbon to make a firmer "head." Best for fall crops. ② A=1/2g, $1.20, ~350 seeds, B=1g, $2.00, C=2g, $4.00, D=8g, $7.00, E=16g, $12.00, K=32g, $20.00. 20,000 seeds/oz.

LETTUCE BEGIN *Lactuca sativa*

1 gram packet sows 25 ft; 2 grams 50 ft; 1 oz 500-700 ft. May be started indoors in March and at regular intervals thereafter, or sowed outdoors as soon as ground can be worked. Most varieties won't germinate at temperatures above 75°. Hardy. All save icebergs tolerate heavy frost. Grow best in cool weather with ample moisture, many kinds suffer bottom rot and tipburn in heat; select summer varieties carefully. Sow every 2 weeks for continuous supply. Lettuce will not head unless thinned frequently & ruthlessly to final distance of 1'. Heavy nitrogen feeders. Lettuces are leaf types except where specified. Early in this century people discovered that lettuce can be eaten raw. Now people are rediscovering cooked lettuce. Try it in soups or wilted over sautéed onions. Our extensive lettuce trial is always a colorful early summer highlight at Shooting Star Farm. U.S. consumption of fresh lettuce is 27.6 lb. per capita per year. **Varieties in this section average 1,750 seeds/pkt. All lettuce is open-pollinated.** See also #6852.

2710 Black Seeded Simpson (42 days) The earliest and most popular looseleaf variety. Large loose crumpled juicy light-green leaves. Does not stand heat well; sow early as the ground can be worked. Heirloom variety introduced by Peter Henderson & Co. of New York in the 1870s. Hirschy offered it for 4¢ per packet in 1890. ② A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2722 Salad Bowl (46 days) Bright-green notched leaves form compact rosette. Stands hot weather better than Black Seeded Simpson. 1952 All-America winner. ③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2728 Red Salad Bowl (46 days) Compact rosettes of spectacular bronze-red oakleaves. Has become one of our most popular lettuces. We sold over 90 pounds of seed each of the last two seasons, the bulk of it to mesclun growers. ②③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2734 Tom Thumb Baby Bibb (46 days) Miniature butterhead type which makes a small tightly bunched head early. Good for garnishes. Outer leaves light-medium green, centers creamy white. Pleasant buttery taste. Very attractive for early markets. William Woys Weaver has untangled its knotted history. It was introduced in England by H. Wheeler & Sons in 1858 and came to the States ten years later courtesy of James J. H. Gregory. ②③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2740 Bronze Mignonette Baby Bibb (46 days) This small ruffled bronze-tinged butterhead captivated me in the 1992 trials. Because Mignonette is only slightly larger than Tom Thumb, it is ideal for baby vegetable enthusiasts. Peter Henderson is credited with naming it and marketing it to several seed houses including Maule's around 1898. ③⑤ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2754 Prizehead (48 days) Crinkly outer leaves tinged with red. Superior flavor. Very popular market type. Bolts in heat. Heirloom offered by Hirschy in 1890 for a nickel a packet. ③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2764 Red Sails (49 days) Petoseed's 1985 All-America winner has become almost synonymous with red leaf lettuce. Red Sails is delicious, slow to become bitter or to bolt even in heat, and a most attractive large plant with purplish red-splashed leaves. New Hampshire market grower Rick Estes says, "Nothing (among reds) comes close to Red Sails for dependability and consistent harvesting for a wholesale market. Heat, cold, drought, wet—it makes no difference, Red Sails comes shining through." Supplanted Buttercrunch as our best-selling lettuce in 1997. Topped 2,000 packets in 1999, almost 60 lb. of seed. *Order early; seed in short supply. Try Royal Red as a substitute.* ⑤ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00. *No size K, order size E.*

2768 Waldmann's (50 days) Large handsome crinkly leaved heads of bright green lettuce. An attractive green leaf Grand Rapids-type for market. Superior appearance and texture to Green Ice, but not as heat tolerant. Gets bitter toward mid-July. ②③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2772 Buttercrunch Bibb (50 days) A 1963 All-America selection. Dark-green outer leaves with creamy center heart. Slow to bolt. Our best-selling lettuce for fifteen consecutive years from 1982-96 until finally overtaken by Red Sails. ② A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2774 Royal Red (52 days) Bright red color at a reasonable price. Offered as a substitute for Red Sails which is in short supply. The brilliant rich cherry-red hue of its crinkly leaved open head really stands out! Grows slowly to medium size but tolerates heat fairly well. Last offered by Fedco in 1994. PVP. BACK! ⑤ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $25.00.

2776 Winter Marvel Butterhead (52 days) A large fancy light green butterhead recommended for fall production and overwintering where the climate permits. Grows rapidly, but bolts readily in summer heat. If you are sowing in spring for an early summer butterhead, be aware that the harvesting window is very narrow. ③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2778 Slobolt (53 days) Two commercial growers who attended the talk on lettuce varieties at MOFGA's 1997 Farmer to Farmer Conference took me to task for dropping Slobolt. Slow growth in its early stages is the key to Slobolt's success as a summer lettuce. A Grand Rapids-type with much paler green leaves than Waldmann's, Slobolt will hold well into July without bolting. Slobolt is versatile: One grower in New York reported good results growing it in winter under lights as well as in summer tightly spaced in the garden. ⑤ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $20.00.

2780 Batavia Blonde #6 (55 days) *Regret no longer available.*

2786 Kagraner Sommer Bibb (58 days) Makes elegant pale-green heads of exceptional quality. Its real claim to fame is its reluctance to bolt even in midsummer heat. ③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

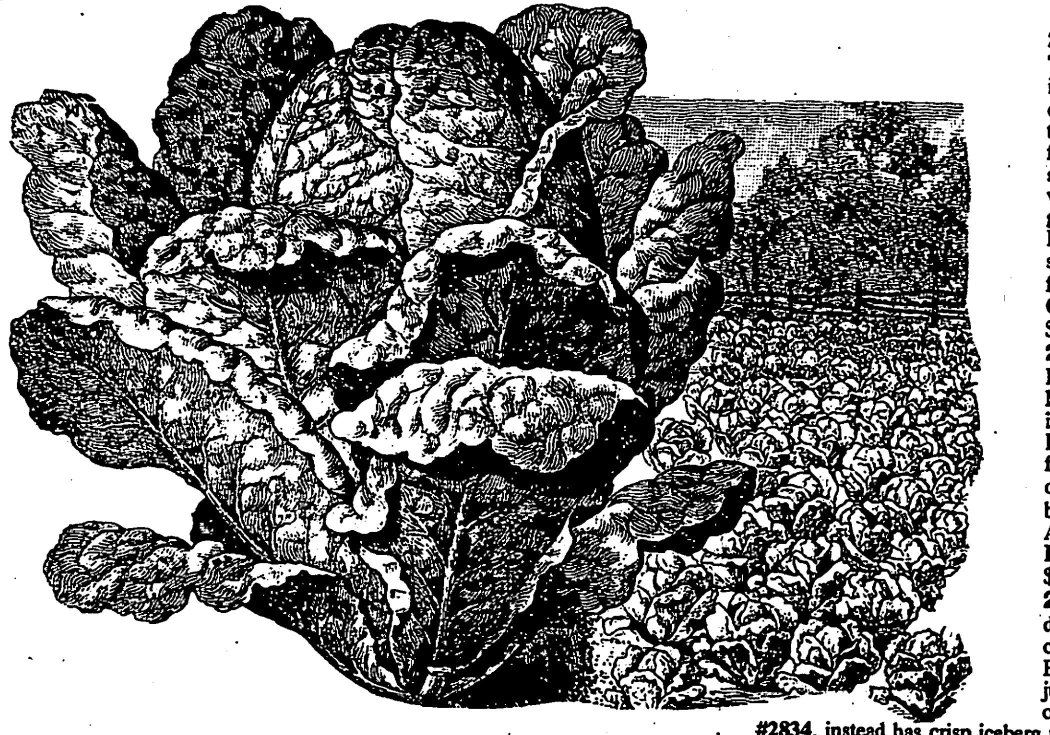
2788 Esmeralda Bibb (60 days) Fancy butterhead lettuce at its best! The most elegant heart of any butterhead we've grown. Compared to Nancy, which it replaced, Esmeralda is slower growing, longer holding, with an even more buttery texture. Makes firm heads with large frames and butts and creamy yummy lime-green hearts. Always a topnotch performer in our trials, its fancy quality put all the other butterheads to shame in 1998. John Waite of Norway, ME, wrote, "I have always considered Buttercrunch…the ultimate lettuce until I tried…Esmeralda….It has beautiful firm crisp heads and is slow to bolt. We were eating from the last planting into early November." Tolerant to DM1, 2A, 2B, 3, 4 and LMV. ⑤ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $20.00.

2791 Winter Density Bibb/Romaine (60 days) Is it a bibb lettuce or a romaine? Doesn't matter, either way it's one of Gene's favorites, as the eating quality of the thick tender dark green leaves is superb. Starts out looking like a bibb. Wrapper leaves fold tightly, form a head like a romaine when mature. Combines the substance of romaine with the tender succulence of bibb. ② A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2794 Rouge d'Hiver Romaine (65 days) This is true Rouge d'Hiver, black-seeded, with much deeper red outer-leaf coloration than the merely tinged Brune. Inner leaves are green with deeply bronzed tip, an attractive color combination which commands attention. Forms a semi-open romaine head with excellent flavor, especially in cold weather. Develops pronounced bitterness in summer heat. *Hiver* means "winter" and both Brune and Rouge are more suitable for fall production or overwintering than for summer. French heirloom from the 1840s. ③ A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $6.00, K=448g, $18.00.

2796 Parris Island Cos Romaine (68 days) The standard market romaine. Upright heads 8-9" tall self-fold to form compact head. Interior greenish-white. Resistant to tipburn and bolting even in heat. Irrigation improves its texture. Cos is an island in the Dodecanese region of Greece where this type lettuce may have originated. First sold in this country by Bernard M'Mahon of Philadelphia in 1802. ② A=2g, 50¢, B=4g, $1.00, C=14g, $1.50, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.

2798 Webb's Wonderful (72 days) Comes to us from England via M. Schultz' lettuce collection. Exceptional buttery mild flavor is reminiscent of the butterheads. Instead Webb's remarkable large-veined lightly savoyed dark-green leaves slowly form a very large crisphead. Stands heat well and bolts reluctantly. A delicious grazing lettuce with never even a hint of bitterness. I start harvesting leaves long before heads form. ② A=2g, 50¢, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $10.00.



LETTUCE CONTINUE

The varieties in this section average 850 seeds per pkt.

2806 Green Ice (45 days) Customers asked us to list Burpee's well-known variety. This shiny crinkly looseleaf with fringed leaf margins is firm and crunchy in salads. Slow to bolt, but gets tough in the centers. A Burpee advertisement unearthed from the March 1974, issue of *Organic Gardening and Farming Magazine* revealed that Green Ice, a cross between a compact butterhead type and large looseleaf varieties, was thirteen years in the making before commercialization. After the passage of the 1970 Plant Variety Protection Act, Green Ice became the first variety to be patented. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2810 Brunia Oakleaf (46 days) Vilmorin's bronze oakleaf type closely resembles Cocarde. Its rusty and green colors, combined with its perfect form, make it one of the most striking in the lettuce patch. More home gardeners should try this longtime commercial favorite. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $60.00.

2816 Cracoviensis (47 days) Of all the lettuces M. Schultz shared with me, Cracoviensis proved to be my absolute favorite, unlike any others in size, shape or colors. Cracoviensis is where the red meets the green, making a dazzling twisting rosette with heavy purple accenting, especially towards the center. Plants are fast growing and very large. Although relatively rapid bolters, their tender buttery flavor without bitterness persists even after they bolt. May be worth a try for overwintering in warmer areas—one customer living in New Jersey near the ocean reported success. Though it is listed as a specific type of lettuce in *The Vegetable Garden* by Vilmorin-Andrieux (1885), we have never seen Cracoviensis offered by any other seed company. Seed grown without herbicides, pesticides or chemical fertilizers. *Crop in short supply, order early.* ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, *not available in larger sizes.*

2824 Simpson Elite (48 days) Despite its name, similar size and light green color, Simpson Elite is a succession variety rather than a replacement for Black Seeded Simpson. Elite doesn't germinate as well in cold soil, or grow as quickly as BSS, but way surpasses the heirloom in its ability to stand heat without bolting. With Elite, you can extend the Simpson season by at least 2-3 weeks. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $3.00, E=28g, $5.00, K=112g, $10.00.

2826 Antares Oakleaf (48 days) A shimmery pink and bronze oakleaf growing vigorously to magnificent size. The extra-frilled finely cut bright leaves are colorful and tender, not bitter even in early July. Antares, especially when started indoors, transplanted early in spring, and allowed ample space, puts on a terrific show. Another dazzling creation by Frank Morton of Wild Garden Seed of Oregon. (See our 1999 catalog for a profile of Morton.) ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $50.00.

2830 Red Deer Tongue (48 days) Heirloom Red Deer Tongue, a longtime favorite in our trials, prominently features thick-textured pointy leaves radiating from compact centers. Bright green leaves with red edges are imbued with a rich nutty flavor that you will want to enjoy again and again. Withstands heat fairly well. Organically grown seed. *Order early; seed in short supply.* ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00. *Not available in larger sizes.*

2834 Blushed Butter Oaks (49 days) This Fedco introduction in 1997 elicited immediate customer interest. One of a new class of lettuces developed by Frank Morton in Oregon and grown without chemical fertilizers, pesticides or herbicides. Best described as a compact oakleaf butterhead, with a delightful combination of pink and green colors and a buttery taste, Blushed Butter Oaks was a hit with everyone who saw it or sampled it at our trial. Has some frost tolerance. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2836 Blushed Butter Cos (49 days) Here is a combination butterhead/romaine lettuce with ruffled savoyed leaves dappled in an attractive palette of reds and greens. Best of all, Butter Cos was judged to be #1 for taste out of more than 100 lettuces in our 1996 trial. Remarkably crisp for such a buttery taste. A Fedco introduction. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2838 Blushed Icy Oak Gene Pool (49 days) Here's the latest of Frank Morton's oakleaf creations, selected out of the Blushed Butter Oaks gene pool. Its rich juicy sweet leaves are tinged red on the outside with green centers. Not buttery like #2834, instead has crisp iceberg texture with enriched oakleaf flavor. Gets bitter only in very hot weather and is somewhat slow to bolt. **NEW!** ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2852 Sierra Batavian (50 days) A red-tinged French Batavian renowned for its extraordinary seedling vigor, resistance to tipburn and reluctance to bolt even in midsummer heat. Has compact upright form. Revered among market growers, it especially stands out in late July when others have rotted or bolted. "Crispy and tasty, my very favorite lettuce," says Bill Half of NOFA-NH. Resists DM, tolerates LMV. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $3.00, D=14g, $10.00, E=28g, $18.00, K=112g, $70.00.

2856 Royal Oakleaf (50 days) The most attractive green oakleaf, recommended for market growers. Darker, larger and fancier than other green oakleaf types. Our supplier calls it the "Rolls Royce of oakleaf lettuces." We agree. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2860 Hyper Red Rumple Waved (50 days) If you are drawn to really deep red lettuces, Hyper is the one. Selecting from a cross between Valeria, a very red cold-tolerant Lollo Rossa type, and Wavy Red Cos, an undulating savoyed red romaine, Frank Morton bred Hyper to accentuate the pigmentation and the ruffled appearance. The result is not only truly stunning, but also tastes good with a pleasing texture. Holds for a while in July before succumbing to heat. Should have good cold tolerance. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2868 Grazer Krauthaupti Batavian (50 days) *Krauthaupti* means an herb or plant with a head. This Swiss Batavian forms a soft green head with frilly savoyed leaves tinged purple at their ends. Lighter color than Sierra; almost equally slow to bolt. Europeans prefer the richer flavor of Batavian lettuces like Grazer to blander iceberg types. **BACK!** ④ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $40.00.

2876 New Red Fire (51 days) Offered as a substitute for Red Sails in 1992, Fire gained a well-deserved popularity with commercial growers. Has Sails' characteristic ruffled leaves, similar though slightly lighter coloration, and good size. Best of all, it has been absolutely the last to bolt in our lettuce patch, lasting as late as July 29! "Handles *both* heat and cold better than any other lettuce I have ever tried in my 26 years of gardening," says Carol Krehbiel of Falmouth, KY. Seed from Japan. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $3.00, D=14g, $10.00, E=28g, $18.00, K=112g, $60.00.

2884 Rossimo (52 days) Even in a trial with 110 types of lettuce in variegated colors, Rossimo's brilliant rich cherry-red crinkly-leaved open head really stood out! Grows slowly but tolerates heat fairly well. Rossimo is Royal Red's look-alike twin, spellbinding with its terrific bright red color in late June and early July. ④ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $40.00.

Hate the Metric System?

We get suggestions to put everything in ounces. The problem comes with the small seeds. 1 gram (an average packet for lettuces, many flowers and a big one for tomatoes and peppers) equals less than 1/28 of an ounce. One-tenth gram, common for many herb and flower seed packets, is about 1/284 oz. These fractions are not meaningful to most people. The more sensible suggestion, to convert entirely to metric, would meet too much opposition. We've included weight equivalent tables on pages 21, 37 and 59 of the catalog to help you with conversions.

2890 Monet (53 days) Shortly after arriving in Giverny, French impressionist Claude Monet (1840-1926) had his gardeners replace the hedges, which he found boring, with flower gardens. I wonder how he would have depicted our lettuce trials after I allowed volunteer red amaranth, sweet annie and carnation poppies to intersperse with the lettuces. His namesake in the lettuce patch looks more like a frisée endive than a lettuce, but that's not surprising because Petoseed bred Monet's deeply indented curly green crisp textured leaves to be cut for mesclun. Monet's close cousin Tango, while unknown in painting circles, is better known in the seed trade, but we prefer Monet's darker green color. Although plants grow 7-8", don't let the leaves go unsnipped too long because this Monet will bolt in heat. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2892 Red Riding Hood Butterhead (53 days) You'll keep the Big Bad Wolf away from the door if you grow this lovely butterhead with deeper red color and much better bolt resistance than Merveille des Quatre Saisons. Veined leaves; large, elegant heads. Close kin to Continuity. ④ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $40.00.

2908 Pirat Butterhead (55 days) Elegant bronzed large butterhead always looks good in the trial. Has a delicious smooth taste, and holds well except in prolonged wet spells. Pirat descended from Merveille des Quatre Saisons but is much more bolt resistant. Seed organically grown. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2912 Speckled Bibb (55 days) An ornamental lettuce of spectacular beauty, its apple-green leaves are splashed with maroon flecks. Will be a stunner in your garden or your salad. Flavor is mild. Makes small firm heads shaped like Merveille des Quatre Saisons, centers with soft leaves blanching creamy yellow. Seed probably brought to Lancaster, PA, prior to 1850 by Mennonite immigrants and, according to William Woys Weaver, introduced into commerce in 1880 as Golden Spotted. Frank Morton, who got the stock seed from the Seed Savers Exchange, has been selecting to alleviate tipburn. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2915 Forellenschluss Romaine (56 days) Also known as Freckles or Trout Back, an absolutely gorgeous romaine with the delicate taste and texture of a butterhead. No wonder it is the Seed Savers Exchange's favorite lettuce of the more than 900 varieties in their collection! Deep green leaves flecked with wine-red splotches distinguish this heirloom, originally from Arche Noah, the Austrian genetic preservation project. Compared with Speckled, more upright, cup-shaped, the splotches are larger and darker, the flavor more buttery and holds better in heat. Just about the best-tasting of the 50 lettuces in our 1998 trial. Tender leaves may be harvested at the 4-6" stage for mesclun or allowed to grow full size for maximum ornamental benefit. An instant hit in 1999, sold over 1,200 packets. ③ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $20.00.

2916 Sweet Valentine Butterhead (56 days) A real sweetheart of a lettuce, Valentine combines magnificent beauty with a mild, sweet taste. Beginning as a large spreading bronzed butterhead with rounded veined leaves, Valentine evolves into a romaine shape. Was very slow to bolt even in our hot dry 1995 conditions. One of my favorites. People are gradually discovering Valentine but it deserves still more notice. ③ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $50.00.

2924 Reine des Glaces Batavian (57 days) Also known as Ice Queen. We have located an Italian source for this scrumptious Batavian, which, in keeping with its type, makes a soft "head." Green convoluted rosettes with intricately toothed leaves lend Reine its distinctive beauty. Stands heat fairly well. ② A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2938 Lollo Rossa Cutting (58 days) A unique type of lettuce generally harvested by snipping leaves instead of taking the whole plant. Frizzy foliage is light red on top, light green at base, making for a stunning contrast. Very cold hardy. Can be used to accent or garnish salads, or as an ornamental. Quite the rage in gourmet restaurants; a mainstay of our mesclun salads. We trialed four Lollos in 1994, and this Swiss strain was the best. Although not quite as colorful as several others, it had a milder, less bitter taste, and was much slower to bolt. ④ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2948 Majestic Red Romaine (60 days) Fancy savoyed rich bronze-red leaves make Majestic positively gorgeous. Cylindrical "head" has somewhat spreading habit. One of the slowest-bolting romaines in our trial and much in demand in recent years. ② A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $20.00.

2952 De Morges Braun (64 days) We owe our awareness of this unique lettuce to M. Schultz. Of the hundreds of lettuces we've grown, none other has the shimmery color of De Morges. As it matures, it grows upright like a romaine, its centers forming a green contrast to the pink outer leaves. Its texture and taste are as noteworthy as its color—smooth, buttery and not at all bitter. De Morges grows slowly and is one of the last to bolt. Rated "really special," the best of the 19 lettuces in the 1997 trial at Hidden Valley Farm. Trialer Polly Shyka called it the "bronze beauty." ④ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2956 Plato II Romaine (65 days) A lettuce fit for a philosopher-king, Plato has all the elegance of the spreading open-habit romaine without any tendency to tipburn in heat. Plato sets the standard for sweet taste in romaine lettuce, holding its quality well into the summer without bitterness or bolting. Its dark green slightly ruffled heavily veined leaves are attractive in any plot. A real winner from Seminis. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $20.00.

2962 Brune d'Hiver Romaine (65 days) A nineteenth century French heirloom, white-seeded Brune features broad flat pale green leaves tinged with bronze at the tips, somewhat redder in cold weather. (Rouge d'Hiver has much redder leaves.) Of striking appearance and very delicious as an early crop. Keep moist to forestall bolting. Turns bitter in excess heat. Seed organically grown. ① A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $40.00.

2968 Crisp Mint Romaine (70 days) Also known as Erthel. Good size, exceptional crispness and sweet flavor without a trace of bitterness even in mid-July. This long-standing dark green romaine with ruffled leaves and open plant habit was a standout in our 1999 trial. Some tendency to tipburn in July heat. Seed came from the Seed Savers Exchange. **NEW!** ② A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2974 Summertime Iceberg (70 days) Summertime is an Oregon State University release with uniform compact dense medium-sized heads of excellent flavor that are without peer in standing heat. Harvest iceberg well into July with Summertime. Resistant to tipburn. ⑤ A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2980 Lettuce Mix A mixture of lettuces with glorious contrasts of reds and greens and different leaf forms to create a beautiful patch. Components may vary, but all will be suitable for cut-and-come-again culture. A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $6.00, E=28g, $10.00, K=112g, $30.00.

2986 Summer Lettuce Mix A special selection of red, green and bronze lettuce varieties that will stand into late July without bolting. A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $15.00, K=112g, $55.00.

2992 Mesclun "Mesclun" is a term from Provence for their characteristic country salad mixtures. In each of the past three seasons, we've sold more than 2,000 packets. Our mix consists of two packets: the lettuce mix described in #2980, and a mixture of mizuna, chervil, endives, sorrel, Red Giant mustard, arugula, and tatsoi. We may substitute one or two other varieties if necessary. Harvest these greens by cutting them with scissors. They will grow back, though you will need to water them in dry conditions. We recommend that you plant each packet in adjoining beds or rows so that the lettuces won't overwhelm the other greens. You can enhance your mesclun by adding other greens such as mâche, claytonia, and bronze fennel. Add edible flowers of garlic chives, nasturtiums, gem marigolds, borage, and mustard blossoms to lend further appeal to the mix by creating delectable color and taste contrasts. A=1g, 80¢, B=2g, $1.50, C=4g, $2.50, D=14g, $8.00, E=28g, $12.00, K=112g, $40.00.

Open-Pollinated GREENS

AMARANTH *Amaranthus* spp.

3008 Hopi Red Dye (46 days) *A. cruentus* Hopi was the best of the nine amaranths in our 1995 trial, displaying the deepest of burgundies from seedling to seeding. Stately plant grows up to 6' with a 1-2' inflorescence. Eat the young leaves in salads or slightly steamed, admire them young or old. The tiny black seeds are also edible. The Hopis make a scarlet food dye from the flower bract to color their ceremonial *piki* bread. Seed grown without pesticides, herbicides or chemical fertilizer. BACK! ①② A=1/16oz, $1.00, B=1/8oz, $2.00, C=1/2oz, $7.00. *Not available in larger sizes.*

3012 Tricolor (50 days) *Crop failure; not available this year. We hope to have it back in 2001.*

ARUGULA *Eruca sativa*

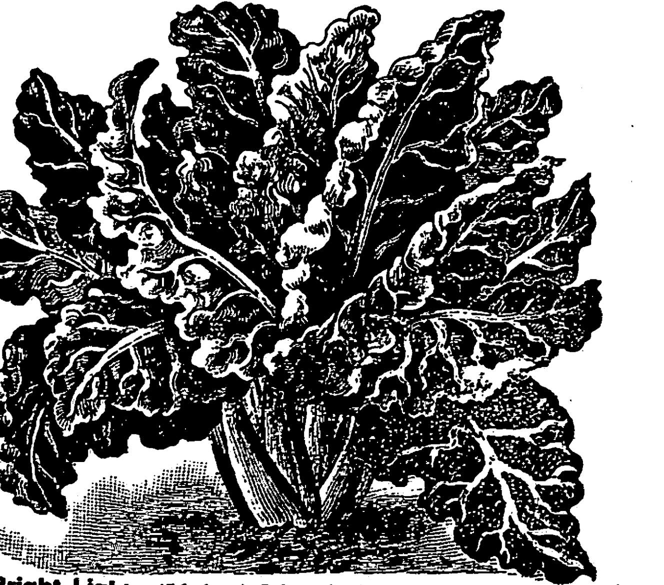
3022 Arugula (47 days) Also known as Roquette or Rocket. Musky green will spice up your salad. Much better when grown for fall crop, as will bolt readily in heat. A prime ingredient in tangy mesclun mixes. Few people are indifferent to arugula: Most of us love it, a few find it inedible. Little known 10 years ago, it is now so popular that we order 50-pound bags of seed! A favorite of commercial growers who bought 90 K-size packets last year plus 93 lb. in bulk. An article in *Hort Ideas* March 1999 (#6588 in our books section) documents Rocket's rich historical legacy in the Middle East where it has been used for thousands of years not just as a salad green, but for treating eye infections, and as a companion plant to suppress garden pests. The seeds were even used as a skin deodorant. ②③ A=1/16oz, 60¢, ~820 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, 3.00, E=4oz, $5.00, K=1lb, $12.00.

CHARD *Beta vulgaris* (cicla group)

1/16 oz packet sows 12 ft, 1 oz plants 200 ft. Hardy.

3032 Fordhook Giant Swiss Chard (50 days) Broad white stems, leaves dark green and savoyed with white veins. The standard variety, introduced by Burpee in 1924. Strains of green swiss chard have been around since 1750. Very hardy. Sales nearly doubled last year to 85 pounds. ③⑤ A=1/16oz, 60¢, ~130 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $2.00, E=4oz, $4.00, K=1lb, $9.00.

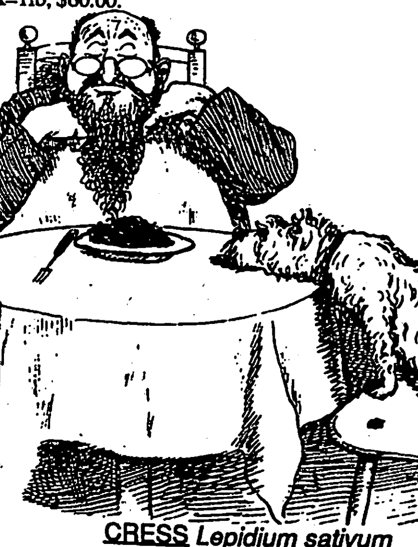
3034 Perpetual Spinach or Leaf Beet (55 days) Thanks to Pam Dawling of Twin Oaks Community Garden (VA) who suggested we add this member of the chard family. Leaf beet looks similar to garden variety swiss chards, but its stems are thinner, and its exceptionally tender leaves are smoother, not puckered. It tastes unlike any other chard, imparting a spinach-like flavor which lingers pleasantly. Unlike spinach, Perpetual lasts through summer into fall as it withstands light and moderate frosts. Pam calls it a "must-grow." ⑤ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $12.00.



3036 Bright Lights (56 days) Johnny's Selected Seeds won its second All-America award for making swiss chard commercially available in a rainbow of colors. Bright Lights bathes stems, midribs and secondary veins in a panoply of gold, yellow, orange, pink, intermediate pastels and dazzling stripes. The AAS judges were impressed by the tenderness of its dark-green to bronze leaves and the mildness of its chard flavor. Young seedlings respond to cut-and-come-again culture, ideal for mesclun. Bright Lights was developed by John Eaton of Lower Hutt, New Zealand, who found the parent plants, a red one and a yellow one, in a small home garden in 1977 and crossed them to standard green and white varieties, selecting for color and flavor over the next fifteen years. Johnny's worked the following years to preserve the strength and range of the individual colors. Our most popular chard, sold over 1,600 packets, nearly 50 pounds in 1999. ③ A=1/16oz, 60¢, ~55 seeds, B=1/8oz, $1.00, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $15.00, K=1lb, $50.00.

3040 Ruby Red Rhubarb (59 days) Deep crimson stalks, dark-green leaves. Very hardy. Beautiful for edible landscapes. Heirloom from Europe goes back to 1857. ②③ A=1/16oz, 60¢, ~160 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $16.00.

3042 Charlotte (59 days) All chard does not taste the same. We've found in our trials that different colored stalks taste noticeably different. Charlotte is a case in point. Slightly redder than old standby Ruby, it is also much sweeter. Worth the extra seed cost if you are particular about chard. ④ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $4.00, D=1oz, $6.00, E=4oz, $20.00, K=1lb, $60.00.



CRESS *Lepidium sativum*

3050 Curly Cress (20 days) Bright green tightly ruffled leaves can be cut as soon as they are a couple of inches tall. Peppery flavor enlivens salads. Offered by C.P. Hirschy for a nickel a packet in 1890. ③ A=1/16oz, 60¢, ~570 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $2.00, E=4oz, $4.00, K=1lb, $9.00.

3055 Wrinkled Crinkled Crumpled Cress (30 days)

Salad green that will impress.
Mix some lettuce, add some dress.
Stir it up, sit down and fress.
Banish cares and summer stress.

With a designer's eye, a discerning palate, and a breeder's deft touch, Frank Morton has done it again! He crossed Persian and curled cresses to create a gene pool, from which he selected Wrinkled Crinkled. Broad leaves are extremely ruffled and wrinkled along the margins and savoyed in the middle. A fluffy, spicy addition to your salad mix. Can be bunched for market. NEW! ① A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $15.00, K=1lb, $50.00.

See also watercress, #4694.

ENDIVE *Cichorium endivia*

1/16 oz packet sows 40 ft, 1 oz 650 ft.

3062 Très Fine Maraîchère (42 days) Large frizzy endive with very fine ribs suitable for late spring and early summer harvests. Known to chefs as frisée. ⑤ A=1/16oz, 60¢, ~1225 seeds, B=1/8oz, $1.00, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $16.00, K=1lb, $60.00.

3084 Lorca (52 days) The curliest and most spread-out of the endives in our trial. Unlike TFM, the leaves are curly, not frizzy. Makes a beautiful plant with large, deep, thick heads which hold a long time. ⑤ A=1/16oz, $1.00. *Not available in larger sizes.*

3092 Broad-Leaved Batavian (85 days) Also known as Escarole. Smooth dark-green broad outer leaves with creamy yellow closely bunched center leaves described as thick and fleshy by Fearing Burr in *Field and Garden Vegetables* (1863). ③ A=1/16oz, 60¢, ~1140 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $9.00.

MÂCHE *Valerianella locusta*

Also known as Corn Salad, Lamb's Lettuce, Field Salad and Fetticus, mâche has a unique nutty flavor that really enhances salads. Harvest by pinching off the entire rosette at ground level. The once-humble peasant green is highly touted by Eliot Coleman, and has now gained favor in higher social strata. It is extremely cold-tolerant.

3102 Verte de Cambrai (45 days) A small-seeded small-leaved strain which performs especially well in cool or cold conditions and is the best variety for overwintering. May be the same variety as grown by Thomas Jefferson in Monticello in 1810 under the name 'Candia.' ⑤ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $8.00, K=1lb, $30.00.

3114 Large-Leaf Round (60 days) Vigorous-growing large-leaf strain which is suitable for sowing in spring for an early summer harvest. Weaver traces this strain back to the 1840s, but for centuries prior to that corn salad was gathered in the wild. ⑤ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $8.00, K=1lb, $30.00. 10,000 seeds/oz.

MINUTINA

3122 Minutina (50 days) *Plantago coronopus* Morse Pitts of Windfall Farm brought this spiky green to our attention. As it comes up it looks like little blades of grass. Crunchy with a mild nutty flavor. Slow grower, will regenerate from cutting, but we recommend succession planting. Extremely cold hardy. NEW! ② A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $15.00, K=1lb, $50.00.

MUSTARD GREENS

3139 Southern Giant (45 days) *Brassica juncea* With our old standby Green Wave no longer available, we offer Southern Giant, a variety so similar that I wouldn't be able to tell them apart if I lined them up side-by-side. Despite its name, Southern Giant is well adapted for cold climates and about as bolt resistant as Wave. Has the familiar bright green color and hot mustardy flavor to put some moxie into your mesclun. Not as hot when parboiled. Will come back when cut. NEW! ③ A=1/16oz, 60¢, ~1060 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $2.00, E=4oz, $4.00, K=1lb, $9.00.

RED ORACH

3148 Red Orach (38 days) *Atriplex hortensis* Key salad ingredient also known as Mountain Spinach, this beautiful red-purple plant thrives in cool weather and should be sown as soon as the ground can be worked. Its spinach-shaped leaves have a mild flavor, and can be pinched back to encourage production and retard bolting. Produces an abundance of seed which can be saved, and will occasionally self sow in your garden. Once very popular in America (Fearing Burr listed 16 varieties in 1865!), then forgotten for many years, Orach has come back into favor. Seed grown without pesticides, herbicides or chemical fertilizers. ① A=1/16oz, 60¢, ~250 seeds, B=1/8oz, $1.00, C=1/2oz, $4.00, D=1oz, $8.00, E=4oz, $30.00, K=1lb, $100.00.

PARSLEY *Petroselinum crispum*

1/16 oz packet sows 25 ft, 1 oz 400 ft. 14,000 seed/oz average. Very hardy. Very slow to germinate (up to 30 days). Soaking seed 8-12 hours will hasten germination. Parsley seed is short-lived; test old seed before sowing.

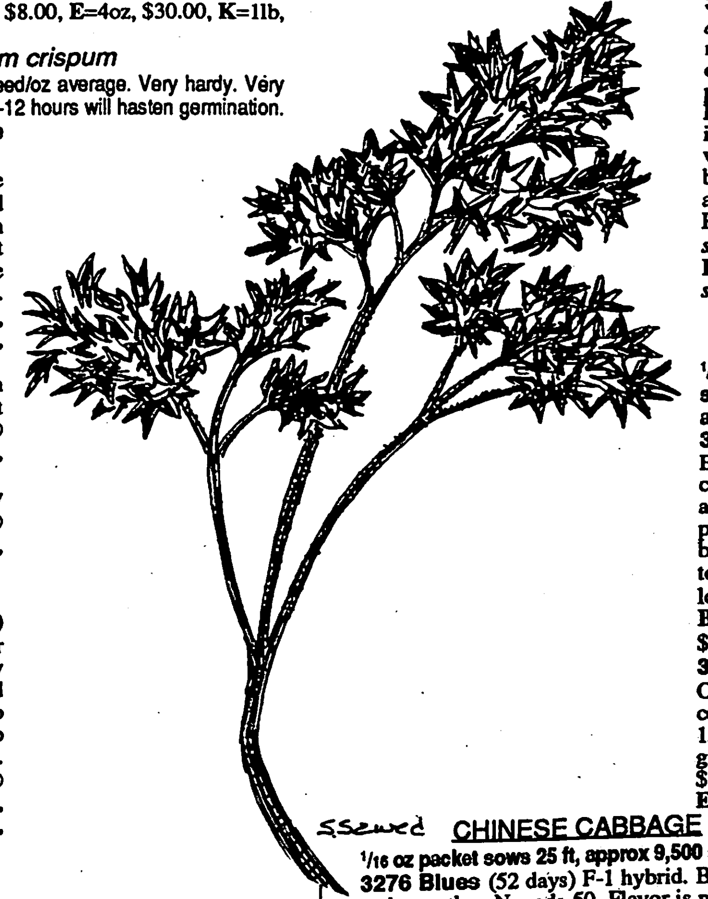
3158 Gigante d'Italia (70 days) We were really wowed by its early seedling vigor and rich sweet flavor in our 1992 trial. Although the regular Plain Leaf eventually almost caught up in size (1') it never matched Gigante in flavor. Heirloom hails from northern Italy. ② A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $6.00, K=1lb, $20.00.

3166 Forest Green (75 days) Combination double- and triple-curled with long, upright stems. Holds color well all season. ④ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $5.00, K=1lb, $9.00.

3174 Plain Leaf (80 days) Flat glossy dark-green leaves with strong flavor. ②⑤ A=1/16oz, 60¢, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $2.00, E=4oz, $3.00, K=1lb, $9.00.

SORREL

3192 Broad-Leaved Sorrel (60 days) *Rumex acetosa* Perennial often known as Sour Grass likes cool weather, acid soil, and plenty of water. Lemony flavored sword-shaped leaves add tang to soups and salads. To maintain steady supply of tender leaves, keep cutting and never let seed stalks mature. Makes a tasty spring tonic in salads. ② A=1/16oz, 60¢, ~1925 seeds, B=1/8oz, $1.00, C=1/2oz, $1.50, D=1oz, $3.00, E=4oz, $8.00, K=1lb, $30.00.



ORIENTAL GREENS

We do considerable trials work with these greens in search of new opportunities to broaden our palates. See also **#6858-6860.**

3208 Maruba Santoh (35 days) *Brassica rapa* (pekinensis group) Open-pollinated. With Maruba you get two vegetables in one. The loose round light green leaves provide a mild piquant mustardy flavor while the flat white stems impart a juicy crisp pac choi taste. Fairly bolt tolerant, so plant after the early spring flea beetle invasion subsides. ⑤ A=1/16oz, $1.00, ~640 seeds, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $40.00.

3218 Senposai (40 days) F-1 hybrid. This exciting new green, developed in Japan, is a cross between Japanese Mustard Spinach (Komatsuna *B. rapa*) and regular cabbage. Its round medium-green leaves are reminiscent of collards, with a delicious lighter taste, and are wonderful in *okonamiyaki*. Best of all, Senposai stands the entire summer and goes well into fall before bolting! Open plant habit needs 12-18" per plant. BACK! ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $5.00, E=4oz, $18.00, K=1lb, $60.00.

MUSTARDS

1/16 oz packet sows 40 ft, approx 15,600 seeds per oz.

3228 Mizuna (40 days) *B. r.* (japonica group) Open-pollinated. Vigorous heirloom Japanese mustard produces slender white stalks with deeply cut and fringed dark green leaves. Not pungent. One planting could suffice for full season production if you watered it in dry spells and kept it cut. Three or more successions would be required for the discriminating connoisseur because the young leaves are more tender. In our 1995 trial, this strain was considerably more bolt-resistant than Kyona. Biennial. Essential in mild mesclun. ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $36.00.

3234 Tokyo Beau (45 days) F-1 hybrid. *B. r.* (japonica group) Regret no longer in commercial production. *Not available in 2000.*

3236 Red Giant (45 days) *B. juncea* (integlifolia group) Open-pollinated. Large purple-tinted savoyed leaves make the 18" plants very decorative. Gene compares their taste to horseradish. I prefer to call it "peppery." It is less hot during cool weather. This heirloom Japanese mustard is a standard ingredient in spicy mesclun. ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $36.00.

3244 Tatsoi (45 days) *B. r.* (narinosa group) Open-pollinated. Also known as Tah Tsai. Spoon-shaped thick dark-green leaves make beautiful compact rosettes with mild brassica flavor. Good stir-fried and in soups. Will come back when cut. Since our purchaser Nikos Kavanya first brought it to our attention, it has become an essential ingredient in our salads and mesclun. ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $30.00.

3252 Toraziroh (45 days) *B. alboglabra* Open-pollinated. Here's a robust performer with just the right kind of mustardy bite. It rapidly develops prolific yields of large very dark green leaves distinctively but not overwhelmingly pungent. In two years of trials won many favorable reviews from brassica lovers. Stems, also edible, have a flavor somewhat like pac choi. Relatively slow to bolt. *Order early; seed in short supply.* ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80. *Not available in larger sizes.*

PAC CHOI
B. r. (chinensis group)

1/16 oz packet sows 30 ft, approx 12,500 seeds per oz. Pac choi and carrots are among the best sources of beta carotene.

3260 Shuko (45 days) F-1 hybrid. Baby pac choi with green stems likes cool temperatures but resists bolting for a long time, even in heat. Vase-shaped plants have broad green petioles with beautiful dark leaves. Virtually identical to Mei Qing Choi which we can no longer get. NEW! ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $4.00, D=1oz, $6.00, E=4oz, $20.00, K=1lb, $70.00.

3270 Prize Choy (50 days) Open-pollinated. Classy pac choi with celery-like white stems and vase-shaped 15-18" tall heads. Seed organically grown. ① A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $4.00, D=1oz, $7.00, E=4oz, $25.00, K=1lb, $90.00.

ssewed

CHINESE CABBAGE *B. r.* (pekinensis group)

1/16 oz packet sows 25 ft, approx 9,500 seeds per oz.

3276 Blues (52 days) F-1 hybrid. Better bolt resistance, disease resistance and taste than Nagoda 50. Flavor is relatively pungent. Suitable for planting early spring through July. You won't have to pay many dues to enjoy these Blues! Moderate tolerance to virus, DM, ALTS, BSR. ⑤ A=1/16oz, $1.00, B=1/8oz, $1.80, C=1/2oz, $8.00, D=1oz, $15.00, E=4oz, $50.00, K=1lb, $180.00.

CHRYSANTHEMUM *C. coronarium*

3292 Garland Serrated (40 days) Open-pollinated. Grown for its aromatic greens with an unusual taste appreciated by devotees. Compared to other Shungiku varieties in our trial, this strain was superior: Its 5" flowers (buttercup yellow, edged in white with serrated tips) were larger and better for the edible flower market and its small grey-green serrated leaves had distinctly more chrysanthemum taste. The Japanese use it in hearty one-pot winter stews known as *oden*. Also good in salads, soups, and stir-fries. Plant thickly in early spring (or summer for a fall crop) and harvest green leaves when stems are 4-8 inches tall, before buds appear. ⑤ A=1/16oz, $1.00, ~890 seeds, B=1/8oz, $1.80, C=1/2oz, $3.00, D=1oz, $4.00, E=4oz, $12.00, K=1lb, $30.00.

OPEN-POLLINATED BRASSICA

2 gram packet sows 45 ft. About 8,000 seeds per oz. Hardy. May be started indoors Mar.-Apr. for setting out in May, or direct-seeded in May or June for fall crop. For better stands in dry conditions sow in trenches. Kale and collards should be direct-seeded in July for Sept. maturity. Require warm temperatures to germinate. Need 60s during seedling stage for optimal growth; higher temperatures make seedlings leggy. Heavy feeders; for best growth, need regular moisture and 2-3' spacing. Combat cabbage loopers with Bt (see **#8901-7** in the supplies section). Use floating row covers to keep out flea beetles. When cauliflower heads first appear, bend leaves over curd to prevent discoloring. We welcome your suggestions for a good open-pollinated early cauliflower variety. Some brassica varieties perform poorly in hot summers. Cauliflower and broccoli are damaged by hard frosts, especially in spring. Brussels sprouts and kale are the hardiest members of the group. We have yet to find a satisfactory open-pollinated brussels sprout variety for our cold region. Please send suggestions. How tastes change! In 1955, Burpee offered 18 varieties of cabbage, only 2 of broccoli. Over the past thirty years broccoli consumption has increased tenfold, but still equals only 3.3 lb. per capita per year. Broccoli contains significant levels of sulforaphane, a substance that helps detoxify carcinogens from the body. Broccoli is also exceptionally high in vitamins A and C and, along with collards and kale, a rich source of calcium. Research indicating that broccoli seed sprouts are more effective in combating cancer than the vegetable itself caused a run on open-pollinated broccoli seeds. *The broccoli seed which we offer is not food grade and we cannot guarantee that it is fit for human consumption. We have no control over the conditions in which it is stored before it reaches us. Please consult your natural food wholesaler or retailer for sprouting seed.*

3310 Thompson Broccoli (92 days) *B. oleracea* (botrytis group) Oregon breeder Tim Peters, who has done much work with open-pollinated broccoli, rates Thompson as better than his earlier development Umpqua. When grown under fertile conditions, Thompson shows excellent resistance to stress and greater uniformity than Umpqua. Dark green heads average 5-6" in diameter, a few days later and without the occasional throwbacks which marred Umpqua. We are pleased to offer this excellent open-pollinated broccoli for fall crops. Seed organically grown in California. ① A=2g, 60¢, ~400 seeds, B=4g, $1.00, C=14g, $2.50, D=28g, $5.00, E=112g, $16.00,K=448g, $50.00.

3324 Early Jersey Wakefield Cabbage (63 days) *B. o.* (capitata group) This wonderful early cabbage originated in England in the early 1800s, was perfected by a German truck gardener in northern New Jersey and released by Peter Henderson in 1868. Wakefield's compact medium 2-3 lb. heads are distinctively pointy, if not intellectual. (Mark Twain said that a cauliflower is a cabbage with a college education, so I guess Wakefield did not matriculate.) Tender, flavorful waxy-looking Wakefield has stood the test of the ages and is still prized by home and market gardeners alike. Sales almost doubled in 1999, surpassed 10 pounds. This year's seed contains 23 seeds per lb. of noxious weeds. ②⑤ A=2g, 60¢, ~620 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $4.00, K=448g, $10.00.

3334 Laso Red Cabbage (75 days) *B. o.* (capitata group) *We regret crop failure in 1999, seed not available. We hope to have back in 2001.*

3335 Des Vertus Savoy Cabbage (95 days) *B. o.* (capitata group) A writer in the *American Agriculturist* (May, 1882) urged that "Savoy cabbage is as much superior to the common hardheaded kinds as the least cultivated grape is superior to the ornamental fox-grape of the woods." That being the case, our selection would be incomplete without at least one kind of Savoy. With Julius probably not available after this year (see #6862), we've returned to the open-pollinated French variety that did well in our trials ten years ago. Its large medium-green heads average 4-6 lb. Flavor is mild and juicy, semi-sweet. Last offered by Fedco in 1991. BACK! ② A=2g, 60¢, ~400 seeds, B=4g, $1.00, C=14g, $2.50, D=28g, $5.00, E=112g, $16.00,K=448g, $50.00.

3336 Mammoth Red Rock Cabbage (100 days) *B. o.* (capitata group) With no seed available for Laso, we've turned to this old favorite which goes back to 1889. Unlike Laso, this is a large late storage cabbage with firm flattened round heads in the 5-8 lb. range. Heads 8-10" across, red-purple to the core. Crisp, sweet taste. NEW! ② A=2g, 60¢, ~620 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $12.00.

3338 Danish Ballhead Cabbage (100 days) *B. o.* (capitata group) We've been looking for more open-pollinated brassicas. What better one than Danish Ballhead, which has been the standard storage cabbage since Burpee introduced it in 1887? Almost round 5-7 lb. blue-green heads grow well in cool climates. Will make marketable size by late summer or, very slow to split, will hold till ready for storage in October. Stores till late spring with a pleasing texture and flavor. ③⑤ A=2g, 60¢, ~1000 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $12.00.

3348 Dominant Cauliflower (94 days) *B. o.* (botrytis group) Where adaptable, Dominant produces a beautiful fall crop of elegant 4-6 lb. heads. It does not perform well in sandy soils under dry conditions, but is a star on highly fertile loams and clay soils. Suitable only for late crops. ③ A=2g, 60¢, ~500 seeds, B=4g, $1.00, C=14g, $3.00, D=28g, $6.00, E=112g, $24.00, K=448g, $90.00.

3358 Champion Collards (60 days) *B. o.* (acephala group) Rich dark strain selected to stand longer. Resembles kale, but not savoyed. Thin to 12" apart for good size. Best as a fall crop. For greens into November; popular in the South for greens throughout the winter. ② A=2g, 60¢, ~665 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $4.00, K=448g, $7.00.

3372 Konserva Kale (60 days) *B. o.* (acephala group) Heavier yielding than Vates. Plants grow 2-2½' tall, leaves curl in cold weather. Very nutritious and exceptionally cold hardy. ③ A=2g, 60¢, ~665 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $8.00, K=448g, $12.00.

3382 Red Russian Kale organic seed (60 days) *B. napus* (pabularia group) Called Buda Kale by Fearing Burr in 1863 and Ragged Jack by Vilmorin-Andrieux in 1885. Russian traders brought this Siberian heirloom to Canada in the 19th century. It has undergone a rousing revival in the last ten years. Its oakleaf foliage colors after fall frosts. Red and purple leaves change to dark green when cooked. Use soon after picking; wilts quickly. Vigorous edible landscape plant has proven a big hit with customers for its unsurpassed tenderness and delicate flavor. Seed organically grown in Washington state. ①② A=2g, 60¢, ~800 seeds, B=4g, $1.00, C=14g, $3.00, D=28g, $5.00, E=112g, $16.00, K=448g, $60.00.

3383 Red Russian Kale commercial seed (60 days) Same as above except commercially grown seed is more economical in the larger sizes. ③ A=2g, 60¢, ~800 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $5.00, K=448g, $16.00.

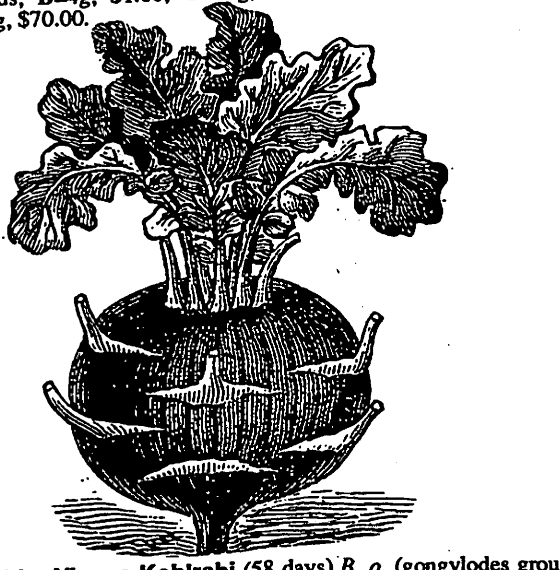
3385 White Russian Kale (60 days) *B. n.* (pabularia group) A flat-leaf Siberian type, silvery green with white veining. Similar to Red Russian, but a few inches taller, a third more productive, with larger, more serrated leaves. Also, much hardier than Red Russian, will hold into November without protection and thrive in an unheated greenhouse, even if temperatures go down to 0°. Gene has harvested White Russian outdoors in Waterville out of the January snow. If season is extended, White Russian will produce new clusters of smaller tender secondary leaves from old axils. As with other Siberian Kales, flavor gets sweeter with frost. Seed grown without pesticides, herbicides or chemical fertilizer. ① A=2g, $1.20, ~490 seeds, B=4g, $2.00, C=14g, $6.00, D=28g, $12.00, E=112g, $40.00, K=448g, $150.00.

"White Russian kale is a great find."

3387 Nero di Tuscana or **Cavolo Palmizio** (62 days) *B. o.* (acephala group) Also known as Dinosaur or Lacinato Kale. Described by Vilmorin-Andrieux in 1885. William Woys Weaver traced it back to the eighteenth century. Weaver calls it "one of the most beautiful kales to grace any kitchen garden" and suggests interplanting with a vivid green lettuce for a spectacular color combination. Nero seems elemental, a stripped-down version of kale shaped like a miniature palm tree about 18" high. Very dark-green wrinkled strap-like leaves appear almost black at a distance, looking minimalist compared with the more common lush curly-leaved kales. Delicious and nutritious as well as adaptable to a wide temperature range, its sweet mild flavor improves after frost. We thank Faviana Olivier for acquainting us with this unique heirloom and providing us with the stock seed. ② A=2g, 60¢, ~750 seeds, B=4g, $1.00, C=14g, $3.00, D=28g, $5.00, E=112g, $20.00, K=448g, $70.00.

Seed Counts

are intended to be informational but not guarantees. Except for two petunias and a begonia, we pack by weight, not by seed count. Seed counts in the catalog are from actual packets in past years. However, seed size, even of the same cultivar, can vary considerably from year to year. All our packets are packed by people, not machines, so the human factor also inevitably causes some variation. If you feel your packet was short, we will send additional seed.



3390 Early White Vienna Kohlrabi (58 days) *B. o.* (gongylodes group) Early dwarf heirloom variety with short tops and medium-sized stems. Bulbs have crisp white tender flesh with a pungent taste. Don't like kohlrabi? Try harvesting it young when it tastes like a humble version of the globe artichoke. Its texture turns tough, woody, and inedible if you wait too long. From Central Europe before 1860. ③⑤ A=2g, 60¢, ~590 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $4.00, K=448g, $10.00.

3392 Gigante Kohlrabi (130 days) *B. o.* (gongylodes group) Tom Vigue and Eileen Fingerman introduced us to this Czechoslovakian heirloom, a staple of their root cellar. Unlike other kohlrabi, Gigante doesn't get woody even when it grows enormous. And it can grow quite large, regularly exceeding 10" in diameter and 10 lb. According to Nichols Garden Nursery, the world record is 62 lb., leaves included. Even in the spring, its crisp white mildly tangy flesh stays tender and never gets fibrous. Gigante will add zest to your meals while you await the first edible greens of spring. Sow in spring for late fall harvest. ④ A=2g, 60¢, ~620 seeds, B=4g, $1.20, C=14g, $4.00, D=28g, $8.00, E=112g, $28.00, K=448g, $110.00.

3396 Quarantina Raab (40 days) *B. rapa* (ruvo group) New in 1997 and an instant hit. Also known as Rapini here and *Broccolo Asparago* in Italy, *Quarantina* means "40 days." Raab is a non-heading version of broccoli with a more pungent flavor. Sow early spring to late summer. Harvest young stems, leaves and small flower buds. Steam, stir-fry or add to salads. ② A=2g, 60¢, ~850 seeds, B=4g, $1.00, C=14g, $1.80, D=28g, $3.00, E=112g, $12.00, K=448g, $40.00.

HYBRID BRASSICA

About 8,000 seeds per oz (28.4g). See also #6862-6863.

BROCCOLI *B. o.* (botrytis group)

3410 Packman (73 days) The best choice for earliest broccoli, since we cannot get seed for our old favorite Bravo. Packman produces 6-7" flat-topped heads. Usually reliable but will button if stressed by extreme cold or excessive moisture. From Seminis. ⑤ A=½g, $1.00, ~95 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

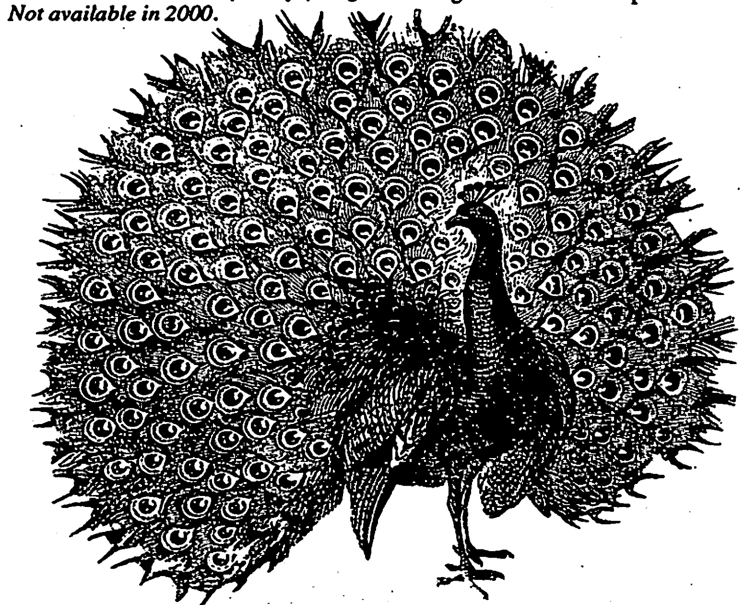
3434 Premium Crop (82 days) Long the standard main crop broccoli for commercial growers. Uniform, dependable with large 8" heads. Very few side shoots. Harvest early in rainy weather to avoid rot in centers. 1975 AAS winner from Takii in Japan. Tolerant to DM. ⑤ A=½g, $1.00, ~125 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $12.00, E=28g, $20.00.

3440 Benihana (84 days) Beautiful semi-domed heads the blue-green color of a Caribbean beach. They set earlier and lower on the plant than Barbados. Robust 7-8" heads are noteworthy for their tight compact beads. A worthy and tasty fall broccoli. Tolerant to DM. NEW! ⑤ A=½g, $1.00 B=1g, $1.80, C=4g, $6.00, D=14g, $12.00, E=28g, $20.00.

3442 Green King (85 days) Green King's exceptional tenderness made it the best-tasting of the 23 varieties in our 1994 trial. Green King also scored high for its consistent yield of large uniform high-quality 8" heads. Market growers will appreciate its uniform ripening. Vigorous plants bear thick blue-green domed heads with rather large beads. Side shoots are large but not plentiful. Green King stands heat well. Be sure to try this outstanding find which could set the standard for the next generation of hybrid broccoli. ③ A=½g, $1.00, ~165 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

3450 Barbados (90 days) I've been sweating it as I watched one superior broccoli variety after another disappear from commerce. I sweated some more as my vital broccoli trial got off to a shaky start in unaccustomed late summer heat. But Barbados turned my beads of perspiration into tears of joy with some nice tight medium-sized beads of its own. My trial was timed to ripen in late September when Barbados produced tight 9" semi-domed heads set high on the plants. Although I have not done a summer crop, Barbados may be worth trialing on a small scale as a warm-weather replacement for Arcadia. Has shown good holding quality in September/October. Good flavor. Tolerant to DM. NEW! ⑤ A=½g, $1.00 B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

3452 Green Valiant (90 days) Regret no longer in commercial production. *Not available in 2000.*



3456 Goliath x Peacock F3 (92 days) What do you get when you cross a goliath with a peacock? No, not an elephant bird, but an elephantine brassica with a dual purpose. This combination of a green broccoli with a colorful flowering kale makes a bold statement with its purple midribs, reddish purple-tinged leaves and—at 2-3' across—impressive size. But it is much more than a garden conversation piece. The succulent rib on each kale leaf and the small purple head in the center provide unexpected reservoirs of sweet brassica treats. A gourmet ornamental edible by Frank Morton. NEW! ① A=½g, $1.00 B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

3462 Arcadia (94 days) *We regret no untreated seed available this year year. We hope to have back in 2001.*

3472 Natalino Romanesco (120 days) A unique open-pollinated heirloom from Northern Italy. When well grown, it is one of the most beautiful plants in the garden with its cone-shaped, somewhat irregular whorl of chartreuse florets. When not well grown, the whorls are small and ugly. The trick is to maintain extremely high soil fertility. We had fantastic results planting in raised beds with 8" of well-rotted manure. Well-grown plants are huge, and need about 10 sq. ft. each. Should be started indoors in March or April and transplanted out in late May or June. Maturity is irregular and can occur any time between August and October. ② A=½g, $1.00, ~125 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $7.00, E=28g, $12.00.

3475 Broccoli Blend (73-94 days) For home gardeners who want broccoli to mature over a long season, a mix of varieties in one packet makes a lot of sense. Begin your harvest with Packman and carry through to Barbados without having to purchase a full packet of each kind. A=½g, $1.00, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

Weight equivalents

1 gram =	.035 oz	
2 grams =	.070 oz	
3 grams =	.106 oz	
4 grams =	.141 oz	
7 grams =	.247 oz	
10 grams =	.355 oz	
14 grams =	.494 oz	
15 grams =	.528 oz	
20 grams =	.710 oz	
28 grams =	.987 oz	
100 grams =	3.53 oz	or .220 lb
112 grams =	3.95 oz	or .247 lb
225 grams =	7.93 oz	or .496 lb
340 grams =	11.99 oz	or .750 lb

BRUSSELS SPROUTS *B. o.* (gemmifera group)

3480 Oliver (90 days) F-1 hybrid. To the connoisseur brussels sprouts are the true kings among brassicas. But they are so fussy that careful variety selection is critical. The ten sprout varieties in our 1999 trial had to overcome the adversities of a late start, excessive heat and inadequate moisture. Oliver, alone, came through, producing nice tight good-sized flavorful sprouts, with none of the rank open sprouts, suckers, or retarded tiny buttons that bedeviled the other kinds. Moreover, Oliver was several weeks earlier than most of the others, and tasted good even before frost. Replaces Prince Marvel. NEW! ⑤ A=1/2g, $2.00, B=1g, $3.00, C=4g, $10.00, D=14g, $35.00, E=28g, $70.00.

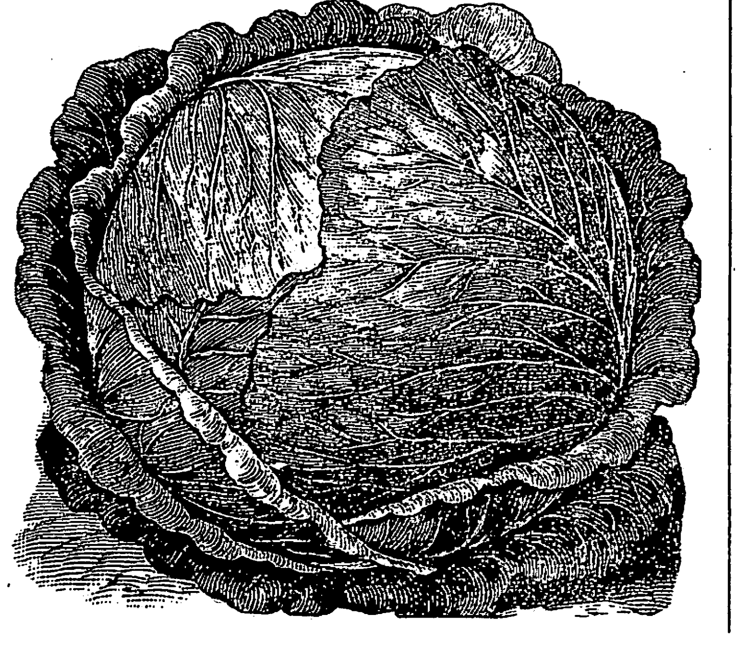
CABBAGE *B. o.* (capitata group)

3503 Hermes (62 days) F-1 hybrid. Quick as Mercury, Hermes is off and growing, producing its 2 lb. round heads in record time. Perfect for the home garden where its compactness permits closer spacing, its small firm heads allow quick consumption and its burst resistance preserves its usefulness for several weeks. One head in our trials stood for over a month. With its small core, rich dark green color and excellent flavor, an appealing early cabbage. Caution: *Hermes seedlings drop leaves in cold, windy conditions.* ⑤ A=1/2g, $1.00, ~140 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

3506 Columbia (74 days) Oh! Columbia the gem of the cabbage, Columbia the most perfect ball! Seriously, we've missed Perfect Ball, too, but the trend is toward smaller cabbages like Columbia, whose motto could be "more cabbage in less space." Compact plants stand crowding well and deliver 2-4 lb. very solid round blue-green heads 6" in diameter which hold for a long time without splitting. Best of all, Columbia comes through with a delicious sweet flavor that just might remind you of Perfect Ball. Resistant to tipburn and FY. ⑤ A=1/2g, $1.00, ~90 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

3508 Grand Prize (76 days) The top choice in Jeanne Griffin's early cabbage trial for us. "Has the extra size, sweet juicy flavor, and classy looks uncharacteristic of early varieties!" says Jeanne. Slightly flattened heads average 5 lb. with tight wrapper leaves. FY resistant. Henry Tewksbury of Brattleboro, VT, reports: "Grand Prize made the best sauerkraut ever and lasted fresh in my basement until mid-February." He calls it "the densest, most compact cabbage I've ever seen in 33 years of organic gardening." ⑤ A=1/2g, $1.00, ~125 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $8.00, E=28g, $12.00.

3526 Super Red 80 (80 days) Super Red 80 ripens after Laso, but well before Ruby Perfection, with tight round medium-dark red heads in the 3-5 lb. range. Splendid appearance will please market growers. ④ A=1/2g, $1.00, ~90 seeds, 95¢, B=1g, $1.80, C=4g, $6.00, D=14g, $20.00, E=28g, $40.00.



3536 Ruby Perfection (85 days) This fancy midseason type has produced some of the loveliest cabbage we've ever seen: solid deep purple-red globe-shaped heads averaging 4-6 lb., occasionally reaching 8 lbs. A great storage cabbage; will keep till May in the root cellar. Low tolerance to black rot. ⑤ A=1/2g, $1.00, ~125 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $20.00, E=28g, $40.00.

3540 Scanbo (95 days) The best keeper in Donna Dyrek's storage trial, lasting until May 1 heeled into dirt in her root cellar. Scanbo produces medium-sized sweet dark 4-5 lb. green heads, very firm and solid straight through the core. Late Langendijk type can be spaced closely. Tolerant to Mycosphaerella and thrips. Our years-long search for a tasty long-keeping storage cabbage reached fruition in Scanbo. ③ A=1/2g, $1.00, ~95 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $14.00, E=28g, $24.00.

CAULIFLOWER *B. o.* (botrytis group)

3552 Snow Crown (70 days) Makes cauliflower a cinch to grow. Dependable producer of uniform 6-7" heads early summer through October. Drought resistant. Very early. Some tendency for pink heads in adverse conditions. 1975 All-America winner from Takii. ⑤ A=1/2g, $1.00, ~70 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $16.00, E=28g, $30.00.

3562 Rushmore (74 days) We haven't trialed it in South Dakota, but Rushmore stands alone as the best second-early variety for the Northeast. A reliable producer of uniform 2 lb. very white high-domed curds which have looked good even in the heat. Its large frame and dark green leaves provide some curd protection from sun and frost. Slightly larger, later and more uniform than Snow Crown with no pink heads. Introduced in 1996 and an instant hit. Alas, we are probably offering for the final time. The grower has priced this right off the market. ⑤ A=1/2g, $1.00, ~135 seeds, B=1g, $1.80. *Not available in larger sizes.*

3570 Violet Queen (80 days) About halfway between broccoli and cauliflower, each plant sets one purple head which doesn't require tying. No side shoots. A tasty novelty for adding color to salads and dips. Turns light green when blanched. *Order early, seed in short supply.* ⑤ A=1/2g, $2.00, ~100 seeds, B=1g, $3.00, C=4g, $10.00, D=14g, $30.00. *Not available in size E, order size D.*

3578 Candid Charm (95 days) Charm produces large curds, in the same class as Dominant, but less fussy. Holds snow-white color a long time. Recommended for fall crops only. We've grown some awesome heads. Our largest, 12x14", weighed 6 1/2 lb. and won a $5 bet. Most were in 3-4 lb. range. ④ A=1/2g, $2.00, ~100 seeds, B=1g, $3.00, C=4g, $10.00, D=14g, $30.00, E=28g, $50.00.

KALE *B. o.* (acephala group)

3582 Redbor (60 days) A spectacular all-red kale! Frilly ruffled leaves take on a dramatic purple coloration in cool weather. Can be grown in summer but really comes into its own in fall. Said to be quite cold hardy; we'll be testing it later this fall. Grows to 3'. For a rainbow kale mix interplant with White Russian, Red Russian, Konserva and Nero di Tuscana. NEW! ⑤ A=1/2g, $2.00, B=1g, $3.00, C=4g, $10.00, D=14g, $35.00, E=28g, $70.00.

3586 Winterbor (60 days) Winterbor was the most vigorous grower in each of our last three kale trials, showing the best cold hardiness and the richest blue-green color. Curled leaves are highly ruffled. "Great in summer, after a frost, and in winter," says Bill Half. ⑤ A=1/2g, $1.00, ~95 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $16.00, E=28g, $30.00.

KOHLRABI *B. o.* (gongylodes group)

3594 Kolibri (45 days) The best purple kohlrabi we've found. It is quick growing, very uniform, purple on the outside, crisp and white on the inside. Interplant with #3036 Bright Lights swiss chard for a dazzling display. ⑤ A=1/2g, $1.00, ~140 seeds, B=1g, $1.80, C=4g, $6.00, D=14g, $16.00, E=28g, $30.00.

ARTICHOKE, CELERY, EGGPLANT, OKRA

Days to maturity are from date of transplanting, not seeding.

GLOBE ARTICHOKE *Cynara scolymus*

Start indoors at temperatures as near 60° as possible and avoid direct hot sun or overwatering (misting is preferred). Use IRT plastic mulch (**#9116-8**) and/or row covers. Feed heavily and give almost as much space as Romanesco Broccoli (10 sq. ft. per plant).

3608 Imperial Star (120 days) Open-pollinated. This delicious vegetable is now accessible to northern gardeners. One Vermont customer called growing artichokes the highlight of her 1996 season. We've seen good specimens at Hidden Valley Farm in Alna and at Forest Farm in Harborside. Market gardener Alan LePage has had success with Imperial Star in Barre, VT, getting as many as eight fruits off a single plant. Most plants will bear more than one, producing most in the cooler fall weather which they prefer to summer's full heat. Plants (both seedlings and mature) can tolerate light, but not hard, frosts. *Caution: May not ripen in northernmost areas.* ③ A=1/2g, 80¢, ~10 seeds, B=*not available*, C=1g, $2.50, D=4g, $8.00, E=28g, $35.00.

CELERY & CELERIAC *Apium graveolens*

0.2 gram packet about 540 seeds, 0.4 gram packet about 1080 seeds, 75,000 seeds per oz. Tender, must be started indoors in March, 10-12 weeks before setting out. Slow growers require rich moist soil to survive.

3616 Afina Cutting Celery (60 days) Open-pollinated from Holland. Sturdy dark green foliage has rich aroma and taste, regenerates quickly after cutting. Imparts the same flavor to stews and soups as conventional celery. Although its culture is the same, it is much hardier and easier to grow. Both its thin hollow stems and its leaves can be used fresh or dried. Grows up to 30" tall. ⑤ A=.2g, 80¢, 545 seeds, B=.4g, $1.50, C=1g, $2.50, D=4g, $3.00, E=28g, $8.00.

3624 Ventura Celery (80 days) *A. g.* var. *dulce* Open-pollinated. Presumably named for Ventura County, CA, where celery is the third- leading cash crop. I always found celery difficult to grow until I tried Ventura. Develops beautiful thick crisp stalks with rich but never harsh flavor even in less than ideal conditions. Because it has some tolerance to fusarium, Ventura doesn't seem to get the punky centers which sometimes plague Utah. Young plants need adequate moisture, irrigate if necessary. ⑤ A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=4g, $3.00, E=28g, $8.00.

3628 Giant Red x Ventura Celery (84 days) F-1 hybrid. What an inspiration by Frank Morton to cross these two! This is one of those marriages of opposites that bring out the best in both partners and hide away the flaws. Wanting to offer red celery, we trialed heirloom Giant Red in 1998, but found it tough, stringy and too strong for modern palates. But when combined with Ventura, the harshness and textural flaws disappear. The result is a delicious chewy stem with plenty of red coloration in the interior. Not quite as tender as Ventura but with an enhanced flavor that will really enliven soups, salads and casseroles. NEW! ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=4g, $4.00, E=28g, $18.00.

3632 Par-Cel Cutting Celery (72 days) Open-pollinated. Five years ago market gardener Eva Sommaripa suggested that we carry this curly cutting celery which looks like parsley but tastes more like celery. When we could not find a commercial supplier, she grew the seed for us herself. In several outdoor trials we've found it a fussy germinator, so we recommend an indoor start. Although it withstands heat and drought, Par-Cel is remarkably cold-tolerant, lasting well into late fall. Tremendously vigorous once established—a half dozen plants would be sufficient even for the aficionado. Makes a terrific garnish, also adds a welcome zest to salads and soups when the leaves are young and tender. As they age they develop a strong flavor not for delicate palates so you may want to cut them back once the roots are well established. ① A=.2g, 80¢, ~400 seeds, B=.4g, $1.50, C=1g, $2.50, D=4g, $9.00. *Not available in larger sizes.*

3644 Diamante Celeriac (100 days) *A. g.* var. *rapaceum* F-1 hybrid. A classy celeriac with nicely sized roots that stand above the ground (for ease of harvest and cleaning), no hollow crown and very few offshoots. I have found that hybrids size up much more quickly than open-pollinated celeriacs. An early start indoors is essential for good yields. Diamante's clean white internal coloration and superb eating quality are sure to please. ⑤ A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=4g, $10.00, E=28g, $60.00.

EGGPLANT *Solanum melongena*

.2 gram packet about 48 seeds, .4 gram packet about 96 seeds. Likes same growing conditions as peppers, but is even more of a challenge in our short season. The selections below are the most reliable producers we've found. We are looking for more, but often in our climate even our highly skilled trialers can get only sparse production of ripe fruits. If you're tired of eggplant parmigiana, Roger Yepsen in a *Celebration of Heirloom Vegetables* (#6516) has an adaptation of a 1908 recipe for eggplant pureé pancakes that sounds yummy.

3666 Swallow (51 days) F-1 hybrid. If past failure with this vegetable has been a bitter pill to swallow, this Swallow might leave a better taste. Swallow is *early*, producing glossy purple-black tender fruit of the elongated (1 3/4x7") oriental type without the bitterness often associated with larger eggplants. Our best-selling eggplant; 831 packets in 1999. ⑤ A=.2g, 80¢, ~55 seeds, B=.4g, $1.50, C=1g, $3.00, D=4g, $10.00, E=28g, $45.00.

3674 Pingtung Long (58 days) F-1 hybrid. Named for a town in Taiwan. A long Chinese eggplant that will please cooks who enjoy the ease of working with uniform slices. Plants are vigorous, stress tolerant, and start producing early for a decent overall yield. If Pingtung is harvested before full maturity its light purple color is especially appealing. As it approaches its full 11" length, its skin will darken but retain a pleasing sheen. Has the taste to keep you coming back for more—an appealing sweetness without bitterness. ③ A=.2g, 80¢, ~60 seeds, B=.4g, $1.50, C=1g, $2.50, D=4g, $4.00, E=28g, $18.00.

3682 Dusky (75 days) F-1 hybrid. A dependable producer for the North. Glossy black fruits medium-sized, oval-shaped, firm. Resistant to TMV. ⑤ A=.2g, 80¢, ~50 seeds, B=.4g, $1.50, C=1g, $2.50, D=4g, $4.00, E=28g, $25.00.

3686 Cloud 9 (80 days) F-1 hybrid. The expression "Cloud 9" probably came from the U.S. Weather Bureau which divided each class of clouds into 9 types. It was popularized in the 1950s by the Johnny Dollar radio show in which the hero was frequently knocked unconscious and transported to Cloud 9. I can only presume the person at Seminis who named this white eggplant thought it was so good that it will knock you out and send you to Cloud 9! And it *is* good, sweet and bitter-free, as well as unusual for its pure white (not ivory) elongated oval fruits. The enormous plants grow 4' tall and spread 3'. They should not be set out until daytime temperatures consistently exceed 70°, or they may get stunted. They like warm nights, too. They liked last June. Given proper conditions they are heavy yielders of perfect fruit. Resistant to TMV. When you get to Cloud 9, please tell me how the weather is up there. NEW! ⑤ A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=4g, $8.00, E=28g, $30.00.

3690 Rosa Bianca (88 days) We're pleased to have seed again for this open-pollinated decorative kind called by Vermont market grower Alan LePage "the best eggplant in the universe," with a creamy, pudding-like consistency and delicate flavor unmatched by any other variety. Gorgeous fruits, white with lavender streaking down the side, can command $3 a pound at markets. Quite different from those familiar slender black types, Rosa is plump, about 3-4" across and 5" long, narrow at the top and going down almost in folds like draped fabric. Fruits average 2 lb, max out at 4 lb, making it LePage's highest-yielding eggplant. Rosa needs to be coddled, particularly in the northern half of New England. Needs alternating temperatures to break dormancy: warm days (preferably 80s), cooler nights (around 70°). We recommend raised beds, row covers and plastic or IRT mulch. Italian heirloom. ②③ A=.2g, 80¢, ~60 seeds, B=.4g, $1.50, C=1g, $2.50, D=4g, $4.00, E=28g, $18.00.

OKRA *Abelmoschus esculentus*

2 gram packet contains about 30 seeds. Okra is very tender and requires a lot of heat. Direct seeding is marginal in our climate. We recommend starting indoors in peat pots in warm (80°) temperatures and transplanting in 4-5 weeks, after all danger of frost has passed. Transplant 1' apart; do not disturb roots.

3696 Cajun Delight Okra (70 days) F-1 hybrid. In our search for okra for our northern clime, earliness is of paramount importance. Our 1996 "endless spring" was not exactly conducive to growing this heat-lover. Yet, All-America winner Cajun Delight ripened with ease, ahead even of Annie Oakley II, and its tender dark angular pods kept on producing until frost. Those unexposed to this southern delicacy should try combining it with other ingredients in a gumbo or frying it. Add vinegar while it is cooking if you wish to circumvent its mucilaginous nature. ⑤ A=2g, 80¢, ~35 seeds, B&C=*not available*, D=4g, $1.50, E=28g, $10.00.

OPEN-POLLINATED PEPPERS *Capsicum annuum*

Room temperature is *not* sufficient to germinate pepper seeds. They need 80s. Very tender, will not tolerate frost, dislike windy spots, will not set fruit in cold or extremely hot temperatures or in drought conditions. Start indoors March or April. Set out June. Black plastic highly recommended. Pick first green peppers when they reach full size to significantly increase total yield. Green peppers, though edible, are not ripe. Peppers ripen to red, yellow, orange, etc.

At GreenGenes Farm, Nikos specialized in growing market peppers, and she has made upgrading our pepper selection a major priority. In the past eight years we have added 27 new peppers, including yellow, orange and purple bells and an array of hot peppers of various hues and shapes.

Green and red peppers are among the vegetables with the fewest calories and the most vitamin C.

For all peppers, days to maturity are from transplanting date.

See also **#6867.**

SWEET PEPPERS

3703 Klari Baby Cheese (65 days) Also known as Golden Delicious Apple Pepper. From Hungary, a Fedco introduction. Cheese peppers are flattened, white when unripe, and filled with a soft core. Shaped like 3" Rouge Vif D'Étampes pumpkins, the squat thick-walled 4 oz. fruits with mild and sweet cores were unlike anything we'd ever tried. I am not a wild-eyed pepper aficionado, but I couldn't stop eating these delicious summertime treats out of hand. Traditionally they are pickled whole after ripening from white to yellow to red. Named after the woman who has maintained this heirloom seed stock. ③ A=½g, 60¢, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $20.00.

3706 King of the North (70 days) Our most popular open-pollinated pepper. A good choice for those who want marketable blocky peppers but can't get. Staddon's Select to set fruit. Offered by Burpee in 1955 for 15¢ a packet and $1.20 an ounce. ⑤ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3714 Boldog Hungarian Spice Sweet Paprika (71 days) This Boldog from Hungary has no bite. A prolific bearer of 6x4" 2-lobed pendant fruits which are picked red, and ground into sweet paprika or strung into decorative paprika ristras. These bright tapering fruits also make good fresh eating. Boldog sets enough fruit to accomodate all three uses. ③ A=½g, 60¢, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $20.00.

3722 Purple Beauty (74 days) Produces a good yield of blocky 3x3" fruits which turn from green to purple to deep red as they mature. Purple fruits taste like other crisp green bells. Will turn green when cooked. Plants 18-20". ②⑤ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $18.00.

3728 Staddon's Select (74 days) Early production of good-sized fruit in adverse conditions. Large, glossy, dark-green 3-4 lobed peppers on tall bushy plants. A good large blocky market-type pepper where fruits will set. *Caution: not adapted to northernmost areas.* ② A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3738 Cubanelle (80 days) Our customers asked for this semi-sweet frying pepper. 6x2" waxy yellow-green fruits turn red. Not pungent. ②③ A=½g, 60¢, ~82 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $8.00.

HOT PEPPERS

Popularity of hot peppers has increased dramatically in recent years, and per capita consumption of chiles in the US now exceeds that of peas, asparagus and cauliflower. Retail sales of salsas have surpassed those of catsup. Hot pepper eaters enjoy the "constrained risk" of a pleasant thrill which, unlike alcohol, tobacco or coffee addictions, has only a short-term effect and is not health-threatening! Capsaicin compounds cause most of the heat in peppers. Warm nighttime temperatures stimulate maximum development of capsaicins and increase pungency levels. Pungency is expressed in Scoville units, after Wilbur Scoville, an Englishman who devised the method used from the early 1900s until about 1980 to measure the heat in peppers. If you overdose on hot peppers, milk is almost twice as effective as water in banking the flames, and bread, rice or tortillas are even better.

3752 Hot Portugal (64 days) Bears elongated narrow fruits, 5-8" long, 1" in diameter with the classic wrinkled hip at the stem end. Superb pepper flavor comes through its considerable heat nicely. Not as hot as Super Chili, but hotter than Early Jalapeño. Early productive ripener of glossy scarlet fruits borne on tall plants. ③ A=½g, $1.00, ~80 seeds, B=1g, $2.00, C=2g, $3.00, D=4g, 5.00, E=28g, $20.00.

3754 Hungarian Hot Wax (68 days) Numerous customers requested this semi-hot type which sets even in cool weather. Smooth waxy yellow 5½x1½" fruits taper to a point. Originated in Hungary, 1941. 700 to 3,000 Scovilles. ②⑤ A=½g, 60¢, ~82 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3756 Bulgarian Carrot Chile (68 days) Also known as Shipkas. We first saw this show-stopper at Amy LeBlanc's farm in 1996. Colored like a polished fluorescent-orange carrot, the thin-walled 1½-3½" tapered fruits are as hot as they look, and will make welcome additions to chutneys, marinades and salsas, or excellent pickles. Plants grow just 18" tall, yet produce clusters of peppers close to the main stem. Their fruity undertone nicely complements their heat. Brought indoors, plants produced in Amy's greenhouse till February. Heirloom was smuggled here through the Iron Curtain 20 years ago. Now you can make a Halloween sauce using Czech Blacks and Carrot Chiles! ③ A=½g, $1.00, B=1g, $2.00, C=2g, $4.00, D=4g, $6.00, E=28g, $32.00.

3760 Pretty in Purple (73 days) Venturesome customers should get great enjoyment from watching this strikingly ornamental pepper ripen. The masses of rounded small shiny red hot peppers start deep purple, progressing through yellow, orange and scarlet as they ripen. The contrast between the purple and green/purple foliage and the various colors of the fruits all in different stages of ripening makes Pretty in Purple spectacular. The peppers, in addition to delighting the eye, may be used sparingly to add piquancy to dishes. Plant habit upright but spreading. ③ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $18.00.

3764 Early Jalapeño (75 days) Hot, hot, 3x1" sausage-shaped blunt fruits mature early. Packing the seed makes us teary-eyed! 4,000 to 6,500 Scoville units at maturity. ⑤ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3770 Long Red Narrow Cayenne (75 days) Often curled and twisted, peppers grow 5-6" long, ½" across, and taper to a point. Dark green color changes to bright red. Prolific and hot. Pre-1827 heirloom. 3,500 to 5,000 Scovilles. ⑤ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3778 Anaheim (78 days) Anaheim is the pepper used for chiles rellenos. 7" long fruits tapering to a point turn from dark-green to red at maturity. Pungent, but not particularly hot. 900 to 2,500 Scovilles. ③⑤ A=½g, 60¢, ~100 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3792 Ancho 101 (85 days) Known as Ancho when dried, Poblano when used fresh, this Mexican favorite is wonderfully versatile. Uniform 4x2" thick-walled shiny dark green fruits mature into a deep red. Shaped like a pointed bell with 2 to 3 lobes, the peppers have little heat in the flesh, storing their mildly pungent flavor in their pith and seeds. A heavy cropper in hot climates, Ancho is not "peppered with peppers" in northerly climes like ours. To equal or better their average yield here of four fruits per plant, take care to start them early and protect the first blooms. 1,500-4,000 Scoville units. ⑤ A=½g, 60¢, ~45 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $5.00.

3796 Habanero (90 days) *C. frutescens* The name means "from Havana," although they really are from other parts of Cuba and the Yucatan. Also known as Scotch Bonnet, Habanero is reputed to be the most fiery pepper in cultivation, registering a blistering 200,000-350,000 Scoville units, depending on how hot the growing season, from 30-80 times as hot as an Early Jalapeño. Each 1½' plant will set 10-20 pendulous fruits which turn from dark green to tangerine as they mature. Fruits are somewhat wrinkled from stem to tip, with a distinct flavor you will always recognize once you've tasted them. A key ingredient in West Indian jerk sauce. We recommend greenhouse culture for the northern third of our sales area where consistent nighttime temperatures below 70° make productivity outdoors extremely iffy. ⑤ A=½g, 60¢, ~110 seeds, B=1g, $1.00, C=2g, $1.80, D=4g, $3.00, E=28g, $13.00.

HYBRID AND MAINE-GROWN PEPPERS

HYBRID SWEET PEPPERS

3810 New Ace (60 days) A cinch to grow in the North. Resists blossom drop even in adverse weather so that almost every flower produces. Fruits thin-walled, not blocky, turn red early. Good home garden kind. New Ace is an improvement on the old strain, producing fewer misshapen pointy peppers, but still not a majority of classic blocky 4-lobed commercial peppers. ⑤ A=.2g, $1.00, ~40 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3815 Fat 'n Sassy (63 days) Peto ought to have called this one "Bold 'n Blocky" because it'll just knock you over with its massive fruit set. They come early, they come often, they come big (4½x4½"), they come blocky, they come sweet, they come thick-walled. You wouldn't believe a 2' plant could carry such a load, so don't you sass me till you see it for yourself. I expect we have a lot of believers by now, because Fat 'n Sassy became our best-selling pepper in its very first listing. Widely adapted. Ripens green to red. A great one for stuffing. TMV and PY tolerant. ⑤ A=.2g, $1.00, ~20 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

GW '99

3820 North Star (65 days) Early productive sweet pepper sets a high percentage of blocky medium-sized thick-walled green fruits ripening to red. North Star has sufficient foliage cover to prevent sunburn. If you're ready to try for a red pepper that's a little classier than Ace, choose North Star. TMV resistant. ⑤ A=.2g, $1.00, ~33 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3822 Greygo Baby (65 days) Wherever we've encountered it in trials, we've agreed that this baby has taste. Even those not normally fond of peppers wanted more. Ripens clusters of early small 1½x2" flattened tapered fruits of the sweet cherry type which combine a refreshing juicy sweetness with full-bodied pepper flavor. In Hungary the red peppers are traditionally stuffed with cabbage and then pickled. ③ A=.2g, $1.00, ~32 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3824 Sweet Havana (65 days) An improved Cubanelle which ripens significantly earlier and produces a larger crop of 3-4 lobed 2x5" fruits which have thicker walls than Cubanelle and sweet flavor. Good fresh, roasted, broiled or fried. Turns from light yellow-green to red as it ripens. ⑤ A=.2g, $1.00, ~33 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3828 Banana Supreme (68 days) Banana peppers are the sweet complement to Hungarian Hot Wax Peppers. You'll want clear labels *and* demarcations in your garden if you plant both since they look alike but definitely taste different. Color develops from green-yellow to yellow to red with advancing ripeness. For its disease resistance, prolific production, and large 7-8" fruits, Supreme was the best banana pepper in Nikos' impressive 1992 trials. ⑤ A=.2g, $1.00, ~40 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3834 Spanish Spice (70 days) Not spicy at all, despite its name. It is instead an outstanding Italian frying pepper—tapering, thin-walled and with a deliciously rich flavor. Moreover, the plants are sturdy, keeping the large 7" fruits off the ground (a frequent failing of other fryers). Provides lots of green peppers and even a few red ones if you have either skill or luck. Resistant to TMV. ⑤ A=.2g, $1.00, ~30 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3844 Amish Pimiento (85 days) Open-pollinated. Amish Pimiento has spoiled our pepper seed grower. Although she has a garden full of other varieties not needed for seed, she'll eat only a ripe red Amish Pimiento. Blame it on the rich sweet fruity taste of these 2x4" squat, ribbed fleshy fruits, productive and relatively early. To steal the slogan from another Waterville entrepreneur (who is unfortunately in the tattoo business, not the seed business) "Welcome to your next addiction!" Seed grown in Maine without pesticides, herbicides or chemical fertilizers. ① A=.2g, $1.00, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

HOT PEPPERS

3854 Dacia Fire (65 days) F-1 hybrid. Dacia's light yellow 5-8" fruits turn fiery orange-scarlet when they ripen, accurately foretelling the considerable heat they offer. Hotter than jalapeño and probably on a par with Hot Portugal, very early for its size and eminently marketable. Tapering to a blunt end like Hungarian Hot Wax, at least half will exceed 6". Roberta got good production, about a dozen Romanian-type fruits, from each 2½' plant. ③ A=.2g, $1.00, ~30 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

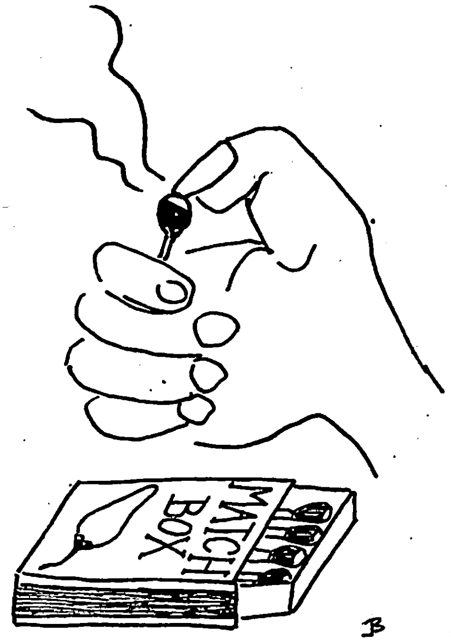
3856 Czech Black (65 days) Open-pollinated heirloom. When they first gaze upon these fruits, people say, "Wow! These don't even look real," reports Roberta Bailey. Black when immature, the 2½" long conical fruits ripen to a lustrous garnet—so beautiful that Roberta kept a bowl on her table just to admire. Mild juicy flesh runs with a cherry red juice when cut. The heat, a tad less than a jalapeño's, is in the ribs and seeds. 2½-3' bushes bear very early, setting about 20 pointed thick-walled peppers per plant. ① A=.2g, $1.00, ~40 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3860 Chilipeño (65 days) F-1 hybrid. Limited in her garden space, Roberta grew just two hot peppers this year—Czech Black and Chilipeño. That shows how highly she values this jalapeño/chile cross. Its thick-walled 4" long tapered glossy fruits come to a blunt point. Starting out green with a purplish-black blush, they ripen red and pack heat like a jalapeño. Productive 2-2½' plants bear consistently whether the summer is hot and dry or cold and damp. NEW! ③ A=.2g, $1.00, B=.4g, $2.00, C=1g, $4.00, D=2g, $8.00, E=4g, $15.00, K=14g, $50.00.

3872 Garden Salsa (73 days) F-1 hybrid. If the thought of ingesting habanero makes you wince, Garden Salsa may be more your style. Bred for those who complain that other salsa varieties are too hot, Garden Salsa's full-bodied sweet pepper flavor comes through without being drowned by capsaicin overload. A great cooking pepper, its fruits provide plenty of kick in homemade salsas. Large plants bear up to a dozen beautiful glossy tapered 8" fruits that ripen to red, but are often harvested green for making salsa. A consistent performer during three years of trials, often bearing under difficult conditions when others balked. 2,500-3,500 Scovilles. Resistant to TMV. ⑤ A=.2g, $1.00, ~20 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3877 Jalapeño Blanco (75 days) F-1 hybrid. Earlier this century certain Southern chefs had a sneaky tradition of using pale hot peppers as the "secret ingredient" in their white sauces. Jalapeño Blanco might revive this old custom. Otherwise, the large 3x2" thick-walled fruits make great yellow stuffing peppers. Enjoy this productive, flavorful, mildly hot, unusually colored pepper. ③ A=.2g, $1.00, ~20 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3880 Super Chili (75 days) F-1 hybrid. I still haven't forgotten this one at our 1990 pepper taste test at Jeanne Griffin's. I required a lot of milk to bank the lingering fires! It was the hottest of all the varieties we tried and ranks 4th on Petoseed's hot 20 with 40,000-50,000 Scoville units. Highly ornamental plants are covered with dozens of green and red 2x½" pointy peppers. Bears prolifically whether summers are wet or dry, hot or cold. 1988 AAS. ⑤ A=.2g, $1.00, ~28 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.



3881 Matchbox (75 days) We are thrilled to introduce Matchbox, a new stable open-pollinated hot pepper named for the fire potential inherent in a matchbox. Admiring hybrid Super Chili's fine qualities, especially its ability to yield well in all kinds of Maine summers, Roberta Bailey and John Bunker set out seven years ago to de-hybridize it. Over the years they selected out pendulous Hot Portugal types, yellow Bananas and red Hungarian Waxes, narrowing to the upright Super Chili types, then discarding the yellow ones. In the past two or three years, they've been fine-tuning their line for proper plant types and selecting for heat and yield. The squat plants bear prolific upright fruit of the same size and shape as a Super Chili, averaging 2" long, 1/3" across and ripening from green to pale yellow to bright orange to deep scarlet. Like Super Chili, they bear well in cold damp weather as well as hot and dry, do well on sandy soil, and mature in the same range. They have the characteristic lightweight leaves of many hot peppers and they have plenty of heat. They can be potted up and brought indoors for the winter. Seed grown without herbicides, pesticides or chemical fertilizers at Super Chilly Farm in Palermo, ME. NEW! ① A=.2g, $1.00, ~66 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00. *Not available in larger sizes.*

3888 Fish (80 days) Open-pollinated. Want to turn a few heads? Grow this African-American heirloom as a border plant. It may be the most attractive pepper plant on the planet with its distinctive green and white mottled foliage and striped fruits. The 2" curving pendant fruits look a little like fish swimming in water. They turn from white with green stripes to orange with brown stripes to red, and pack considerable heat and full-bodied flavor that especially enhances shellfish cookery. A mutation of a common serrano pepper that probably originated in the 1870s, Fish was extensively grown by the black community in the Philadelphia/Baltimore region by 1900. 2' spreading bush plants benefit from staking. This is not a fish out of water in most parts of New England, but *may require a little too long for the coldest pockets*. Occasional plants will regress to solid green leaves. Rogue out if you are saving seed. Fish crosses readily with other peppers, requiring greater populations and more isolation to keep the strain pure. NEW! ① A=.2g, $1.00, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3894 Thai Hot (82 days) Open-pollinated. Habanero is the only hotter pepper we list. Thai Hot, believe it or not, is grown "in the trade" as a red and green Christmas potted plant. However, devoted followers of hot cuisine prize the sparks it creates. Early pinching will produce a bushy 8" plant that can be pulled, roots and all, and hung to dry for winter use. Or grow it inside in a basket for both ornamental and edible enjoyment. Not Maine-grown. ① A=.2g, $1.00, ~66 seeds, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

3897 Some Like it Hot Mix (64-85 days) Love hot peppers but lack the space to try separate packets of each? Our blend of seed for 5-7 different kinds all in one packet is just for you. We'll mix colors, shapes and flavors. A=.2g, $1.00, B=.4g, $2.00, C=1g, $4.00, D=2g, $7.00, E=4g, $13.00, K=14g, $45.00.

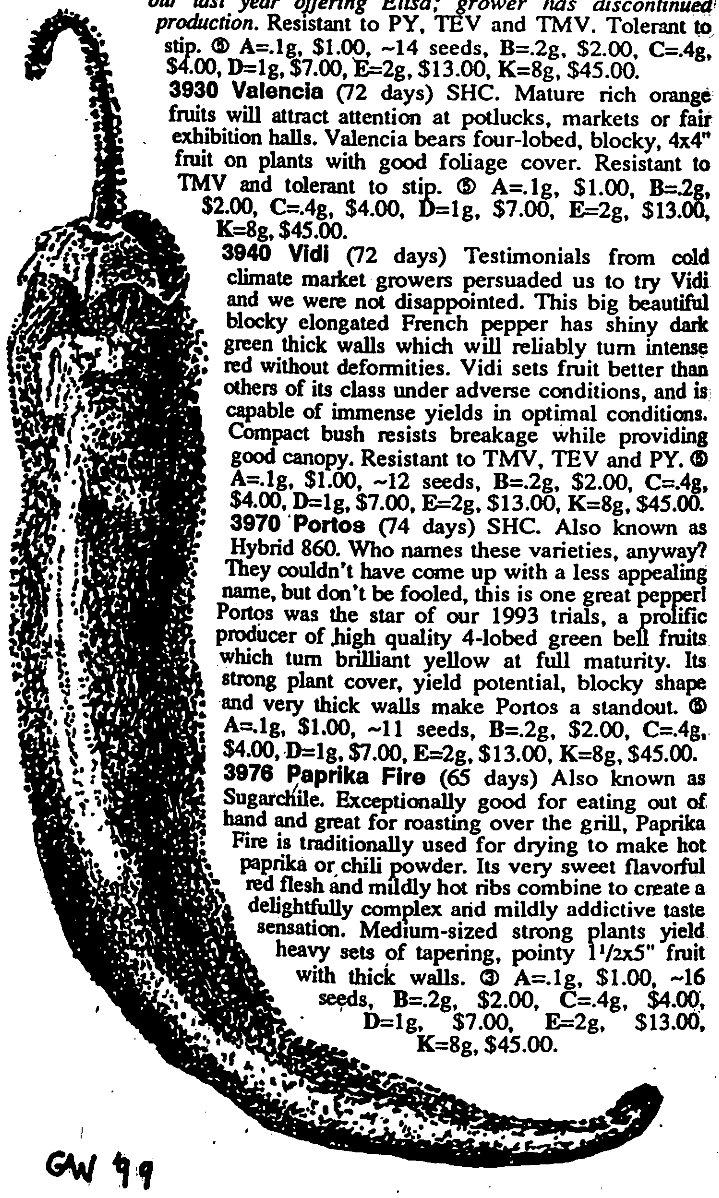
FANCY HYBRID SWEET PEPPERS

The varieties marked SHC were cleaned with a sodium hypochrlorite (SHC) rinse to reduce risk of seed-borne disease. SHC treatment complies with MOFGA and other certification standards, and poses no health threats.

3906 Turino (68 days)
Red roaster, red roaster you sure have it all.
Red pendant massed peppers; it's not even fall.
Red roaster, red roaster they say you're so sweet.
Over six inches long, delicious, no heat.
Red roaster, red roaster you have such thick walls.
They surely won't crumble, not even in squalls.
Red roaster Turino, you're ripe 'fore full color.
I prefer you deep red, but you're tasty when duller.
Red roaster Italian, not shaped like a bell.
Square bottoms, then tapered, but oh, what the ___!
Red roaster, red roaster you're great for the North!
Which is why we continue to offer you forth!

"Now I understand why there is always a poem by Turino sweet peppers. They are sweet! Mine grew up to 11" long. Every bite good," wrote Sue Casson of Winnebago, IL. ③ A=.1g, $1.00, ~14 seeds, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.

3910 Elisa (70 days) SHC. Nikos searched years for a pepper to replace Ringer and this one might be a "dead ringer." Early maturity, tolerance to cool conditions, and big beautiful fruit ranging from deep blocky green to elongated red made this a standout in 1993's extensive trials. *This may be our last year offering Elisa; grower has discontinued production.* Resistant to PY, TEV and TMV. Tolerant to stip. ⑤ A=.1g, $1.00, ~14 seeds, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.



3930 Valencia (72 days) SHC. Mature rich orange fruits will attract attention at potlucks, markets or fair exhibition halls. Valencia bears four-lobed, blocky, 4x4" fruit on plants with good foliage cover. Resistant to TMV and tolerant to stip. ⑤ A=.1g, $1.00, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.

3940 Vidi (72 days) Testimonials from cold climate market growers persuaded us to try Vidi and we were not disappointed. This big beautiful blocky elongated French pepper has shiny dark green thick walls which will reliably turn intense red without deformities. Vidi sets fruit better than others of its class under adverse conditions, and is capable of immense yields in optimal conditions. Compact bush resists breakage while providing good canopy. Resistant to TMV, TEV and PY. ⑤ A=.1g, $1.00, ~12 seeds, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.

3970 Portos (74 days) SHC. Also known as Hybrid 860. Who names these varieties, anyway? They couldn't have come up with a less appealing name, but don't be fooled, this is one great pepper! Portos was the star of our 1993 trials, a prolific producer of high quality 4-lobed green bell fruits which turn brilliant yellow at full maturity. Its strong plant cover, yield potential, blocky shape and very thick walls make Portos a standout. ⑤ A=.1g, $1.00, ~11 seeds, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.

3976 Paprika Fire (65 days) Also known as Sugarchile. Exceptionally good for eating out of hand and great for roasting over the grill, Paprika Fire is traditionally used for drying to make hot paprika or chili powder. Its very sweet flavorful red flesh and mildly hot ribs combine to create a delightfully complex and mildly addictive taste sensation. Medium-sized strong plants yield heavy sets of tapering, pointy 1 1/2x5" fruit with thick walls. ③ A=.1g, $1.00, ~16 seeds, B=.2g, $2.00, C=.4g, $4.00, D=1g, $7.00, E=2g, $13.00, K=8g, $45.00.

PHYSALIS

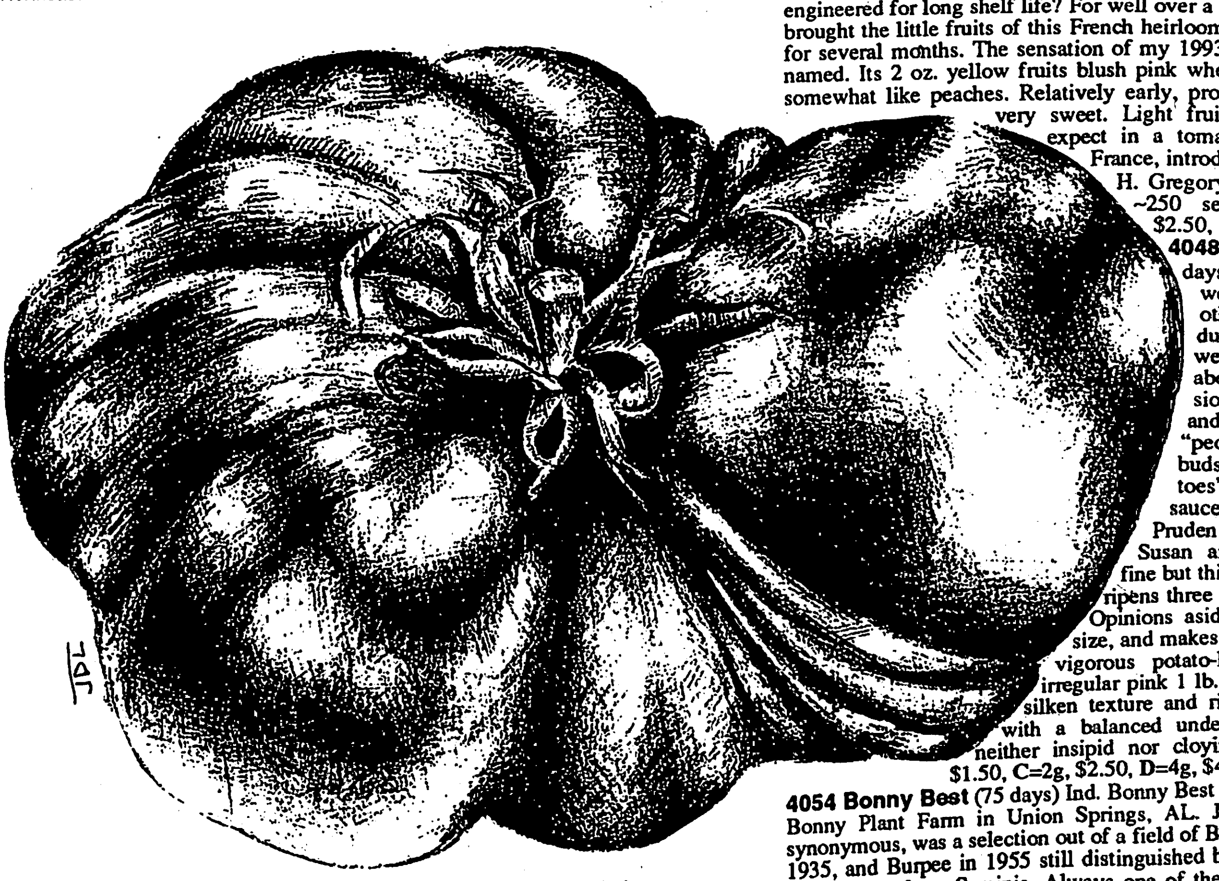
4008 Husk Cherry (77 days) *P. pruinosa* An open-pollinated treat inside every paper wrapper! Also known as Ground Cherry. Same genus as Chinese Lantern and tomatillo, bearing fruits which ripen inside their protective husks. As clusters of berries sweeten, they turn from green to golden yellow, drop off the decorative branching plants as they ripen, and reach perfection as their husks thin to a near-gossamer papery consistency. The berries have an indescribable nutty flavor that kids love for raw snacks. Grown-up kids will often go back for more, too. *Don't eat them green—they can be a powerful emetic.* Culture like tomatoes, transplanting after last spring frost. Husk cherries will tolerate a touch of frost but give up when temperatures dip below 30°. In a good year, about half will ripen in time. Will readily self sow, although volunteers never mature as quickly as those started indoors. Seed grown in Vermont without pesticides, herbicides or chemical fertilizers. ① A=1/2g, 80¢, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00. *Not available in size E, order size D.*

4014 Toma Verde Tomatillo (77 days) *P. ixocarpa* Open-pollinated heirloom. Large-fruited uniform strain. Golf ball-sized green fruits encased in papery husks are harvested for making salsa when paper splits. They can be eaten raw for a tangy, nutty taste if allowed to turn slightly yellow, but will split before becoming fully yellow. According to Roger Yepsen, when sautéed "they take on an almost cloyingly rich flavor—buttery, even meaty, as sweet as if brown sugar had been stirred in." ⑤ A=1/2g, 80¢, ~265 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $8.00.

TOMATOES *Lycopersicon esculentum*

9,000 seeds per oz., .2g pkt ~60 seeds, .5g pkt ~150 seeds. Tender, cannot tolerate frost. Must be started indoors Feb.-Apr. Require warm temperatures to germinate. Avoid using hot manure as it causes lush foliage with few ripe fruits. Instead use generous amounts of well-rotted compost or cow or horse manure to boost plant vigor and yields. Heavy phosphorus needs. Respond well to foliar sprays. Determinate (det) bush varieties may be staked, normally should not be pruned. Indeterminate (ind) climbing varieties are customarily staked and pruned. Caging without pruning delays ripening, reduces fruit size but increases production, prevents sunburn and reduces fruit cracking and rotting. Staking and pruning produces earlier larger fruits. One reason not to stake or prune (besides sheer laziness!) is that foliage will give fruits some protection against light September frosts. Large-fruited varieties with low fruit set and high sugar content are most prone to crack. To reduce cracking: avoid heavy watering, avoid large fluctuations in day/night temperatures and maintain adequate calcium levels in your soil. Research at Harvard University suggests that men who eat at least ten servings per week of tomatoes sharply reduce their risk of prostate cancer and women who consume 2-4 or more servings reduce their risk of breast cancer. Consumption of raw tomatoes is linked to reduced cancers of the esophagus, colon and rectum.

We place a heavy emphasis on diversity in our tomato trials. Most years I grow more than 100 different varieties at Shooting Star Farm (107 in 1999). Our research brought eight additional varieties to our 1998 lineup, four more for 1999 and one for 2000. At least four more are in the pipeline for 2001, including a superb orange paste and the best lemon-yellow we've ever found. The rich cultural heritage of the many colorful heirlooms speaks for itself. Who could fail to be enchanted with names like Cherokee Purple, Dad's Mug, Box Car Willie, Radiator Charlie's Mortgage Lifter, Prize of the Trials, Dad's Barber, Snowball and Stump of the World? Heirloom tomatoes are entering the mainstream: tasting events are springing up all over the Northeast.



If you insist on unblemished, perfectly round, red tomatoes you're missing out on a rich diversity of shapes, colors, textures and complex subtle flavors. Music teacher and tomato fanatic Amy LeBlanc says that "yellow tomatoes have bad press comparable to and as undeserved as that of viola players in the orchestra." The DiMare Company, one of North America's largest fresh market tomato growers (over 17,000 acres), says that is changing. Yellow tomatoes are becoming staple in the trendier stores and even reaching into mainstream markets. Striped tomatoes may be next.

We select heirloom varieties to amaze and delight home gardeners, but an increasing number of market growers are now testing heirlooms' commercial potential. We suggest offering prospective customers free samples.

For all tomatoes, days to maturity are from date of transplanting.

See also **#6868-6872.**

OPEN-POLLINATED TOMATOES

4024 Oregon Spring (58 days) Det. Recommended as a "hedge" in northern climates for cold summers like 1986, 1992 and 1996. When most other varieties fail to ripen in time, Oregon Spring matures good-sized fruit in August, actually performing best during cool summers. Develops more cosmetic defects in the heat and humidity. Bears succulent almost seedless fruits of Russian parentage, up to 4" but somewhat variable. Unusually good tasting for such an early variety. Bred and developed by Dr. James R. Baggett of Oregon State University. Potato-leaf foliage. Not suitable for market growers. Resistant to V. ③ A=1/2g, 80¢, ~250 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4032 Ida Gold (59 days) Det. Often these delightful orange 2-bite low-acid fruits are the first tomatoes to ripen for us. They are early and prolific even in bad tomato years. Developed specially for the North by the University of Idaho. An indifferent performer in so-so soil, but a bountiful yielder when fed compost and rotted manure. ① A=1/2g, 80¢, B=1g, $1.50, C=2g, $3.00, D=4g, $6.00. *Not available in size E, order size D.*

4044 Seeds by Design's German Johnson (70 days) Ind. Heirloom tomato experts Carolyn Male, Chuck Wyatt, and Paul Hauser have confirmed that the potato-leaf strain we have been offering as German Johnson is a misnomer—not the Pennsylvania Dutch heirloom which is one of the parents of Mortgage Lifter. True German Johnson does not have a potato leaf. This past summer we trialed authentic German Johnson from Chuck Wyatt alongside this strain, and preferred the latter. This tomato, though historically inauthentic, delivers authentic rich tomato flavor. Very uniform and attractive for an heirloom variety, the 12-24 oz. slightly oblate low-acid pink fruits start ripening early and keep coming steadily. The interplay of subtle flavors makes for a robust tomato-ey taste. Now if anyone can tell us what we're really enjoying, we'd be extremely grateful. ③ A=1/2g, 80¢, ~160 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4046 Garden Peach (71 days) Ind. Who needs tomatoes genetically engineered for long shelf life? For well over a century savvy gardeners have brought the little fruits of this French heirloom indoors before frost to keep for several months. The sensation of my 1993 tomato trials, Peach is well named. Its 2 oz. yellow fruits blush pink when ripe and have fuzzy skins somewhat like peaches. Relatively early, prolific, soft-skinned, juicy and very sweet. Light fruity taste is not what you'd expect in a tomato. Called *Pêche Jaune* in France, introduced in America by James J. H. Gregory in 1862. ①③ A=1/2g, 80¢, ~250 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00

4048 Pruden's Purple (72 days) Ind. We usually cooperate well at Fedco and tolerate each others' peculiarities *except* during tomato taste tests. When we compare tomatoes, a subject about which we are all impassioned, tolerance evaporates and remarks are made about "people who have no taste buds," who "eat yellow tomatoes" and who "put sugar in their sauce." CR thinks you don't need Pruden's if you have Brandywine. Susan and David like Brandywine fine but think Pruden's tastes better and ripens three weeks earlier in hot seasons. Opinions aside, Pruden's is early for its size, and makes a great sandwich tomato. Its vigorous potato-leaf vines yield spreading irregular pink 1 lb. fruit with very few seeds, a silken texture and rich tomato taste, nicely tart with a balanced undertone of sweetness that is neither insipid nor cloying. ③ A=1/2g, 80¢, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4054 Bonny Best (75 days) Ind. Bonny Best was developed in 1908 at the Bonny Plant Farm in Union Springs, AL. John Baer, often considered synonymous, was a selection out of a field of Bonny Best in 1915. Maule, in 1935, and Burpee in 1955 still distinguished between the two. Our Bonny Best comes from Seminis. Always one of the richest-tasting in our trials, this old-time canning variety is also fine for the home garden. Too prone to catfacing for market growers and too soft to stand much handling, but great for eating whole right in the garden. Medium-sized bright scarlet globes slightly flattened at the stem end. ⑤ A=1/2g, 80¢, ~115 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $6.00.

4056 Rutgers (75 day) Det. This famous New Jersey tomato was developed by Campbell's Soup Co. in 1928 as a cross between Marglobe and JTD, and refined by Rutgers University in 1943. It has long been considered an outstanding slicing, cooking and canning tomato. Medium-sized 5-8 oz. unblemished deep oblate fruits with rich red interior and pleasing texture have that great old time flavor! Resistant to F1, V1, ASC and GLS. ②⑤ A=1/2g, 80¢, ~135 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $6.00.

4062 Jubilee (80 days) Ind. Also known as Golden Jubilee. Nikos discovered this one at a Waldo County Extension taste test at Unity College Actually, I'd had it in the trials several years before and overlooked it despite rating it highly. The best medium-sized open-pollinated orange tomato, Jubilee ripens smooth-textured sweet mild meaty 8 oz. globes. Nikos brought me back one from the tasting and it was superb, on a par with Goldie both for texture and flavor. Smaller and less prone to blemish than Goldie. Won an AAS for Burpee in 1943. Resistant to ASC. ⑤ A=½g, 80¢, ~120 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $6.00.

4063 Rose de Berne (80 days) Ind. We looked for several years for a medium-sized pink tomato that delivers the robust flavor of the bigger types. Along the way we trialed June Pink, Gulf State Market, the highly touted Eva Purple Ball and a number of others. This French variety was the clear winner with a rich sweetness the others could not match. I found myself popping one after another of the juicy 5½ oz. translucent smooth pink fruits into my mouth. It didn't shortchange me on appearance, either; the unblemished globes were perfectly round, the soft skins not excessively fragile and the color and size very attractive. After late May transplanting, production began (on Aug. 19) slowly at first, copiously by September. NEW! ④ A=½g, $1.50, B=1g, $2.50, C=2g, $5.00, D=4g, $8.00, E=28g, $40.00.

4064 Green Zebra (80 days) Ind. Amy LeBlanc, who offers seedlings for over 100 different varieties, called it "a wonderful surprise." A most unusual beast in the tomato menagerie, this zebra starts out green with dark green stripes, softening and blushing yellow when it ripens. It might have remained a mere curiosity, but for its scrumptious sweet rich flavor. 4-5 oz. small-medium fruits are emerald green inside. Perfect exteriors, hold up under adverse conditions and don't crack. Strikingly different. Could be a hit with your kids or on your stand. A=½g, 80¢, ~165 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4065 Soldacki (80 days) Ind. You won't find a better sandwich tomato than Soldacki, a heavy producer of meaty, tasty 14 oz. pink globes with a good mix of sweetness, tartness and real tomato flavor. Tall, vigorous potato-leaf vines. Originally from Krakow, Poland, brought to Cleveland, OH, around 1900, then to Albany, NY. One of Nikos' favorites. Prone to cracking in wet seasons. ③ A=½g, 80, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4066 Brandywine (82 days) Ind. with potato-leaf foliage. Meaty with just the perfect hint of tartness, pink Brandywine is the tomato most responsible for the revival of interest in heirlooms. Rose Marie Nichols McGee in Oregon, among the first to appreciate its commercial potential, provided us with our stock seed in 1991 and our sales have since quintupled to over 1,000 packets per year. William Woys Weaver has debunked the myth that Brandywine is an Amish tomato. It was, in fact, introduced in 1889 by Johnson & Stokes, a Philadelphia seed house. Ford Seed Co., W. Ravenna, OH, offered seed for $1.75 per lb. in 1902. Collector Ben Quisenberry considered Brandywine to be the best-tasting tomato. So do I. Brandywine consistently delivers more of that good old-fashioned tomato flavor than any other kind. The oblate beefsteak-type fruits come in right around a pound. Although they ripen unevenly throughout the season, at least a few will be quite early for such a large tomato. This is the Quisenberry strain. ⑤ A=.2g, 80¢, ~100 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $20.00.

4068 Pineapple (85 days) Ind. The striped tomatoes are among my favorites. They have such great names as Hillbilly, Mr. Stripey-Tigerella, Georgia Streak and Pineapple, silky smooth textures and complex, fruity tastes. They tend to be a little funky cosmetically and often grow huge, 1 lb. or more. Pineapple, Amy LeBlanc's favorite salad tomato, is certainly characteristic—and may be the best of the genre. Cut in half, it looks like the interior of a pineapple except with yellow and red marbling. It doesn't taste like a pineapple, though, nor like a typical red tomato, either. Its unique mild low-acid fruity sweetness needs a fruit name all its own. But until I can invent it, I'll just call it the most beautiful tomato of all—at least from the inside. Potato leaf foliage. The original seed stock came from Martha Gottlieb. ③ A=½g, 80¢, ~150 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4070 Tiffen Mennonite (86 days) Ind. Tiffen has many similarities to the more famous Brandywine—potato-leaf foliage, pink skin, and rich, rich old-fashioned tomato taste which has twice drawn raves at tastings at staff annual meetings. The large rough oblate beefsteak fruits (avg. 15 oz.) are a tad bigger and later than Brandywine. For a superb sandwich tomato or a fresh garden snack, heirloom Tiffen is hard to top! ③ A=½g, 80¢, ~150 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4082 Gardener's Delight Cherry (68 days) Ind. Gardener's Delight often ripens just when Whippersnapper is through. Its larger size, deep red color and rich sweet flavor also contrast with Whippersnapper. The large plants need staking and will bear till frost. The fruits are so wonderful that I can overlook their annoying tendency to crack. ③ A=½g, 80¢, ~250 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

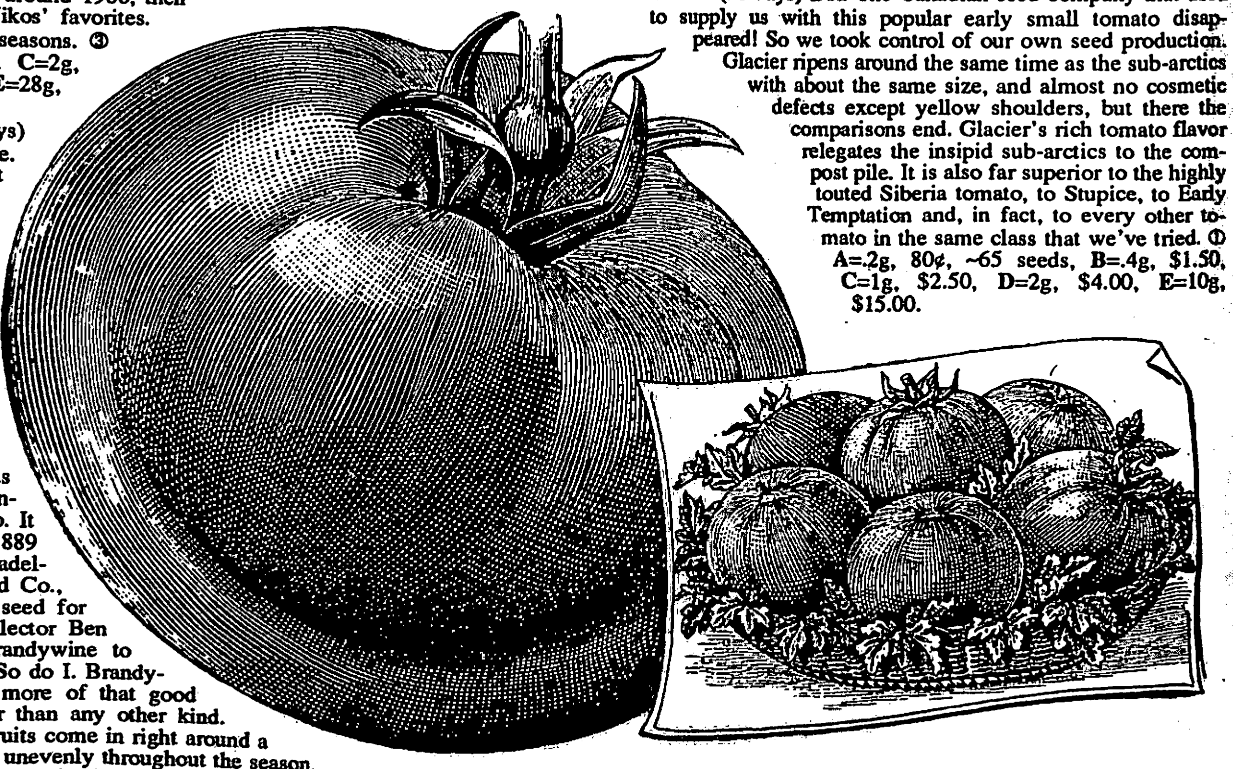
4090 Principe Borghese Cherry (75 days) Vigorous det. Bears small fruits in prolific clusters over a long season. An Italian variety of excellent flavor used for sun-dried tomatoes as it has few seeds and little juice. In our humid climate, you will need a solar dryer or a 100° oven to dry the fruits successfully. Also makes a tasty sauce, although you'll need a lot of the little tomatoes! CSA grower Jill Agnew lauds them for holding their perfect shape so well without cracking. ② A=½g, 80¢, ~330 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

4096 Yellow Plum (72 days) Ind. We've nibbled on these meaty little gems for years. Unlike the pear types, they don't crack or succumb easily to disease. Heirloom offered by Indiana seedsman Hirschy for a nickel a packet in 1890. ③ A=½g, 80¢, ~235 seeds, B=1g, $1.50, C=2g, $2.50, D=4g, $4.00, E=28g, $15.00.

MAINE-GROWN TOMATOES Open-Pollinated

Take the leap and reward yourself with some new tomato experiences! All the seed in this section, except where noted, was grown by Fedco staff and trial growers without the use of pesticides, herbicides or chemical fertilizers. All was treated with a trisodium phosphate (TSP) rinse to reduce risk of seed-borne disease. TSP treatment complies with MOFGA and other organic certification standards and poses no health risks.

4106 Glacier (56 days) Det. The Canadian seed company that used to supply us with this popular early small tomato disappeared! So we took control of our own seed production. Glacier ripens around the same time as the sub-arctics with about the same size, and almost no cosmetic defects except yellow shoulders, but there the comparisons end. Glacier's rich tomato flavor relegates the insipid sub-arctics to the compost pile. It is also far superior to the highly touted Siberia tomato, to Stupice, to Early Temptation and, in fact, to every other tomato in the same class that we've tried. ① A=.2g, 80¢, ~65 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.



4112 Cosmonaut Volkov (65 days) Ind. If you've read our mouth-watering descriptions of this quintessential fresh-eating tomato only to be disappointed that we've sold out early again, your time has come. Donna Dyrek of Loon Song Farm grew two pounds of seed this year and every order will be filled! I'm a fresh-tomato eating fiend. In the course of trialing hundreds of varieties, I've consumed thousands of fruits. The best two I ever ate were Cosmonauts from different gardens in different years. Always good, sometimes better, and occasionally sublime, Cosmonaut delivers the true tomato taste. And it is early, usually ripening quantities of deep red slightly flattened 8-12 oz. globes at the beginning of August when tomato craving is at its peak. Even in cold summers, it will produce dependably by mid-August. What makes Cosmonaut so special? In a word, the juice: sweet rich and full-bodied. The fruits look good, too, giving Cosmonaut possibilities as a market tomato. Cosmonaut was named for the Russian explorer who fell through space. The Seed Savers Exchange deserves credit for bringing it from Russia. Our motto is: Out of outer space and into your mouth! So sell us out again—we dare you! ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4120 Sochulak (70 days) Ind. Very heavy early yields of oblate pink fruit with a meaty texture suitable for eating or cooking. Eaten out of hand has the best flavor of any paste tomato. This heirloom, pronounced suh-*coo*-luk, came from Italy to New Jersey three generations ago. Shortly after Ed and Ann Susen moved to their farm in Lincoln Center, ME, in 1976 they received seed from a New Jersey relative. Ann passed the seed on to her daughter Barb Sochulak, from whom the variety gets its name, who gave a sample eighteen years ago to Roberta Bailey. Over the years Roberta has maintained it, selecting for earliness and disease resistance. Although still not blemish free, it is a fine choice for home gardeners. Oxheart type grows medium to very large size, quickly fills up the sauce pot. This Fedco Seeds introduction caught on fast with our customers. ① A=.2g, 80¢, ~80 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4148 Black Krim (80 days) Ind. If you think a tomato should be round, red and cosmetically perfect, steer clear! Black Krim scales the heights and wallows in the depths: at its best a striking iridescent purple, at its worst a hunk of road-kill. Most Black Krims have dark green-black shoulders with pronounced catfacing. Interiors are part black, too, with an unusual juicy yet meaty taste and texture. They taste best when they are dead ripe, which means blackish-red on the bottom and so soft one can hardly get them from garden to table intact! "My friend Matt says the Black Krim tomato has a smoky flavor like a good single malt scotch. I concur!!" says Andrew Knafel of Shaftsbury, VT. A wonderful example of just how diverse the tomato can be, heirloom Krim hails from Krymsk on the Black Sea in Russia. Our original seed stock came from Martha Gottlieb, the avid seed saver who coordinates the Exhibition Hall at Common Ground Fair. ③ A=.2g, 80¢, ~65 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4163 Aunt Ruby's German Green (85 days) Ind. If you think green tomatoes are good only for mincemeat, your first taste of Aunt Ruby's will change your opinion forever. One fan described it as "a phenomenal conversation piece whose tangy bright green gel tastes even better than the conversation it makes." Oblate 12-16 oz. fruits blush lightly yellow and develop an amber-pink tinge on the blossom end when ripe. Watch closely and don't allow them to get too soft before picking. The green flesh of this beefsteak is faintly marbled with pink. Flavor sweet and tart, rich and spicy. Created a sensation at our staff taste-testing in September. 1996, where it was rated "good" or "excellent" by all who tried it, ranking behind only Brandywine. Aunt Ruby's is not just the best green tomato, it is one of the best of any color. From Ruby Arnold of Greenville, TN. ① A=.2g, 80¢, ~46 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4167 Schimmeig Striped Hollow (85 days) Ind. We are indebted to Joe and Bobbi Cavanaugh, avid seed savers and founders of the Garden State Heirloom Seed Society, for this spectacularly beautiful stuffing tomato. Shaped somewhat like tri-lobed bell peppers, fruits red with gorgeous gold streaking, mostly hollow interiors. Once it gets going, Schimmeig cranks out a plethora of 2½-5 oz. fruits. Unlike the "cardboard" walls of other stuffers we've tried, Schimmeig tastes good. Originally from Germany. ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4168 Goldie (90 days) Ind. We again have the original strain which so impressed us in our 1994 and 1995 trials by delivering its rich flavor with an extraordinary velvety texture. Deep orange beefsteak fruits with a little red streaking on the bottom average 16-20 oz. Heirloom dates from the 1870s. Under cold and/or excessively wet conditions prone to catfacing which detracts from its superb texture. Several people who grew our Heirloom Mix reported that Goldie was their favorite. ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

Donna Dyrek

As the years go by, Loon Song Farm is looking more and more like a Fedco Seed farm. This year Donna Dyrek and Chip D'Antilio grew seed crops for eight different tomatoes, three peppers, Shirofumi soybeans **(#488)** and Sheba Barley **(#5910)**. They are also keeping five other tomatoes on a 2-year rotation.

On their beautiful two-acre south-sloping hillside gardens, Donna and Chip mix flowers and vegetables, trials, market and seed production. Like Wini Noyes', Donna's record-keeping is known for its accurate details.

Although she does not come close to realizing a working wage from seed growing, jokingly guessing that she "maybe makes two or three cents an hour" Donna plans to expand her seed growing commitment while reducing her vegetable marketing. She prefers to raise seeds because she wants to stay on the farm with her four young daughters. She can make just as much at home with seeds as she could marketing produce two days a week.

Tomatoes are labor intensive, and Donna required 279 plants to produce slightly more than 5 pounds of seed. Varieties differ widely in their ability to yield seed. Donna quickly harvested 7 ounces of seed from just 16 Goldie plants, stopping when she exceeded her contracted amount. Blue Beech paste tomato, by contrast, was a miser, needing 54 plants for 8½ ounces of seed. "I always go into the first year [with a new variety] blind," says Donna.

As with most of our other growers, Chip and Donna spend much more time processing the crop than growing the seeds. Chip's crop—the barley—is the worst offender, for he harvests it head by head and extracts the seed by hand. "We made $75 on hours and hours of labor. A thresher would have made a big difference instead of using two [human] threshers," acknowledged Donna, expressing interest in finding higher tech ways of processing.

4170 Ruby Gold (90 days) Ind. *Regret crop failure in 1999; not available. We hope to have back in 2001.*

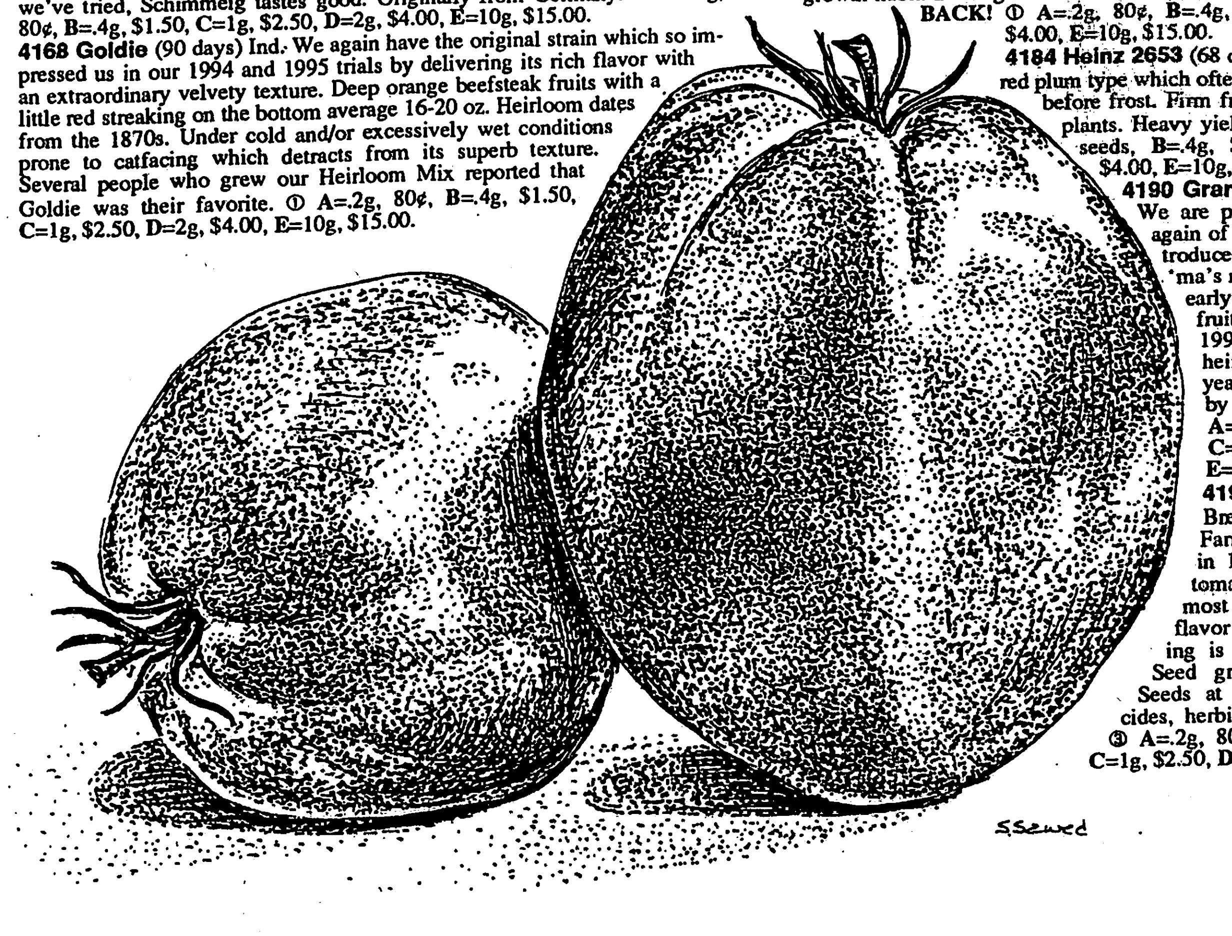
4177 Ciudad Victoria (64 days) *L. e.* var. *pimpinellifolium* Ind. Frankly, until I met Ciudad, the recent rage for currant tomatoes left me cold. All the ones I tried cracked at the drop of a dewdrop! Their tiny bland fruits just weren't worth the trouble. Ciudad is different, with larger fruits than other currants. Ciudads bolster the fruity wildness of the currants with some solid tomato taste, sweet with acidity, seedy, rich, good. The fruits do not crack *ever*, not on the vine, not after picking, not even after a heavy rain. Long rambling 3-5' vines bear red-orange ⅓-½" berrylike fruit in clusters of 9-13. With Ciudad, Fedco is finally "au courant." Actually, Ciudad originated in northern Mexico a long time ago. Weaver considers it the most common type of cherry tomato grown in the United States before 1865. ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $20.00.

4179 Peacevine Cherry (78 days) Rampant ind. Selected from Sweet 100 cherry tomato by Peace Seeds, and almost identical in fruit size and growth habit. Bears gazillions of sweet clusters each with 8 or so 1" fruits. BACK! ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4184 Heinz 2653 (68 days) Det. An amazingly early red plum type which often ripens all its 2½-3 oz. fruits before frost. Firm fruits for cooking, on compact plants. Heavy yields early. ① A=.2g, 80¢, ~55 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4190 Grandma Mary's (68 days) Ind. We are pleased to have a good crop again of this popular sauce tomato introduced by Fedco in 1992. Grandma's meaty 6-10 oz. fruits are very early for their size. It produced fruit even in the cold summers of 1992 and 1996. Seed from this heirloom was selected for 6 years for earliness and fruit size by Jeanne Griffin. **BACK!** ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4194 Bellstar (74 days) Det. Bred at Smithfield Experiment Farm in Ontario and introduced in 1981. Red 4 oz. round paste tomatoes are much larger than most others of this type. Delicious flavor is also good in salads. Ripening is spread over a long season. Seed grown by Johnny's Selected Seeds at Albion, ME, without pesticides, herbicides or chemical fertilizers. ③ A=.2g, 80¢ ~95 seeds, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.



4196 Amish Paste (85 days) Ind. 45 seed savers can't be wrong! That's how many listed Amish Paste in the 1999 Seed Savers Yearbook, making it one of the most popular items in the Exchange. Their comments tell it all, "the ultimate sauce type," "meaty, few seeds, good for eating fresh or making sauce," "juicy and extremely sweet...absolutely the best paste tomato ever grown in our garden," "canner, good producer, outstanding this year," "heart shaped fruits with very good flavor," "good enough to inspire me to finally try to re-offer some seeds via SSE," and "never fails me." Prolific producer of oxheart fruits up to 8 oz. In our sauce tests had a good creamy texture and nice balance of acids and sweetness, always ranking near the top in comparisons. Thick bright-red sweet flesh. Larger and better than Roma. Wisconsin heirloom. Early orders will get organic seed from Maine. Later orders will get commercial seed. *We regret that Lot 212 last year was not true to type, producing instead very large pink cherry tomatoes. If you got these, please request a free replacement.* Our California supplier has assured us they've remedied the problem. ①③ A=.2g, 80¢ B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4197 Hog Heart Paste (86 days) Ind. We regret crop failure. *Not available this year*. We hope to have back in 2001.

4198 Blue Beech Paste (90 days) Ind. This superb large elongated paste tomato won our tomato sauce taste test in 1997, besting several well-known varieties. We received seed from Annette Smith of Blue Beech Farm in Danby, VT, and have named the variety in honor of her farm. Smith got the tomato from her neighbor's niece's uncle who brought it to Vermont from Italy during World War II. This Roma type has been acclimated in Vermont for the last 50 years so it is much more adaptable to cold climates than Roma. It makes a richly-textured sweet sauce that's just brimming with flavor. Fruits, averaging 6-8 oz, often have green shoulders. Needs long season to ripen. A Fedco introduction. ① A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

4199 Heirloom Tomato Mix You'd love to be adventurous and try them all but you haven't space for that many tomato plants? Or can't make up your mind which ones to select? Here's the solution: Skip the fuss and leave the choosing to us! We'll mix together a bunch of varieties in one packet. You'll get different colors, sizes, shapes and flavors. All you'll need is an open mind, a good sense of observation, unjaded taste buds and acute deductive faculties. Then you can figure out which ones you like and order them by name next year. A=.2g, 80¢, B=.4g, $1.50, C=1g, $2.50, D=2g, $4.00, E=10g, $15.00.

HYBRID TOMATOES

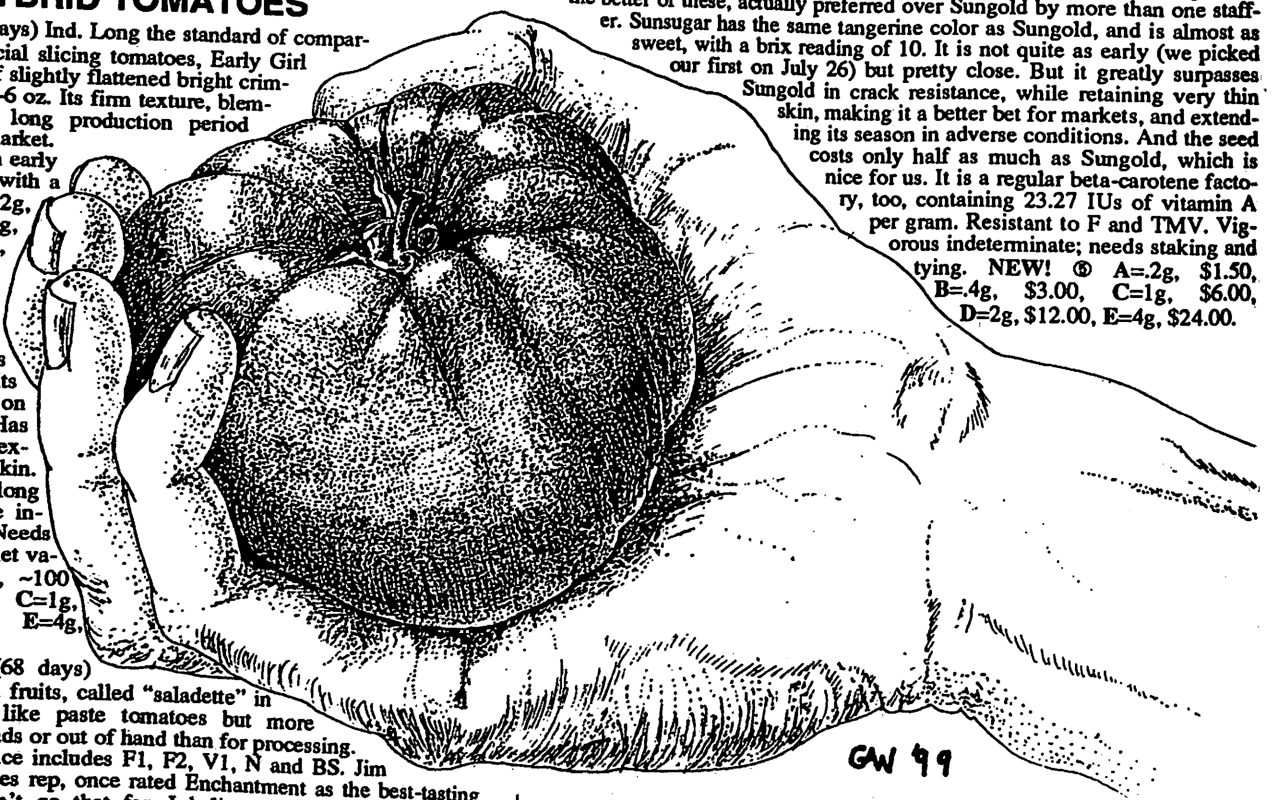
4205 Early Girl (60 days) Ind. Long the standard of comparison for early commercial slicing tomatoes, Early Girl delivers heavy yields of slightly flattened bright crimson globes averaging 4-6 oz. Its firm texture, blemish-resistant skin and long production period make it ideal for market. Good flavor for such an early tomato—sweet, meaty with a hint of tartness. ② A=.2g, $1.20, ~85 seeds, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4210 Early Cascade (66 days) Ind. Always very impressive: Begins producing 4 oz. fruits very early, and keeps on till frost and beyond. Has delicious taste despite exceedingly firm thick skin. Holds quality on vine a long time. Disease resistance includes V1, ASC and S. Needs staking. A favorite market variety. ⑤ A=.2g, $1.20, ~100 seeds, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4218 Enchantment (68 days) Ind. Egg-shaped pointed fruits, called "saladette" in the supermarket, look like paste tomatoes but more suitable for eating in salads or out of hand than for processing. Multiple disease resistance includes F1, F2, V1, N and BS. Jim Waltrip, our Seminis sales rep, once rated Enchantment as the best-tasting tomato. While I wouldn't go that far, I believe it is one of the most underrated varieties on our list. And it is very early and prolific. One customer reported that green fruits brought inside nearly all ripened and were still good into November. ⑤ A=.2g, $1.20, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4228 First Lady II (70 days) Ind. First Lady II boasts good-tasting round 4-5 oz. fruits bred for the home garden which color early, and keep coming all season. Excellent disease resistance to V, F1, ASC, S and N. ⑥ A=.2g, $1.20, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4242 Firebird (71 days) Ind. *Regret grower has discontinued production. No longer available.*



4260 Big Beef (75 days) Ind. Many beefsteak varieties are ugly, oversized, mealy balls of fluff. But Big Beef answers my beef about beefsteaks because it looks great and actually tastes like a tomato. Moreover, it is a real workhorse producer of 10 oz. spotless fruits which start ripening early and keep coming till frost. This large vigorous plant should please both market growers and home gardeners and it certainly pleased the judges who made it a 1994 AAS. Big Beef's bred-in resistance to V, F1, F2, ASC, S, N and TMV helps its sustained performance. Big Beef was such a success for its breeders at Petoseed that they grew enough seed to fill almost 3 million packets in 1995! ⑤ A=.2g, $1.20, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4268 Celebrity (78 days) Det. Impressive seedling vigor and flavorful firm 7 oz. fruits merited a 1983 AAS award. Best-looking tomato seedlings I've ever raised. A favorite of both home gardeners and commercial growers. Wide disease resistance includes V1, F1 and 2, ASC, N, S, and TMV. From Seminis. ⑤ A=.2g, $1.20, ~66 seeds, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4275 Golden Boy (88 days) Ind. Golden Boy has convinced more than a few that a tomato doesn't have to be red to be good. Not just good, Golden Boy was at or near the top of each of our tomato taste tests until we discovered the heirlooms. The deep color and rich flavor of its 8-10 oz. golden-yellow fruits makes most lemon-yellow tomatoes bland by comparison. Because GB's fruits usually develop blemishes if allowed to fully vine-ripen, we recommend picking them slightly underripe and allowing them to finish in the kitchen. Why hail a Taxi when you can get so much more mileage out of a Golden Boy? Tolerant to ASC. ⑤ A=.2g, ~60 seeds, $1.20, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4282 Sun Gold Cherry (57 days) Ind. To quote one of our customers, "Without these little babies, there's *no summer*." Sun Gold is the best cherry tomato ever developed, a perfect combination of deep sweetness with a hint of acid tartness. Its small fruits, borne in prolific clusters, ripen very early to a rich yellow-orange color. Resists F1, TMV. *Crop failure this year. We have a very limited amount of seed held over. Order early; we expect to be sold out by Jan. 20. Available in size A only, limit one packet per customer,* please. ⑤ A=.1g, $1.20, ~65 seeds.

4284 Sunsugar Cherry (62 days) Ind. A few years ago, a crop failure for Sungold would have caused panic. But believe it or not, we've had two entries in recent trials that gave the Japanese hybrid a run for it. Sunsugar was the better of these, actually preferred over Sungold by more than one staffer. Sunsugar has the same tangerine color as Sungold, and is almost as sweet, with a brix reading of 10. It is not quite as early (we picked our first on July 26) but pretty close. But it greatly surpasses Sungold in crack resistance, while retaining very thin skin, making it a better bet for markets, and extending its season in adverse conditions. And the seed costs only half as much as Sungold, which is nice for us. It is a regular beta-carotene factory, too, containing 23.27 IUs of vitamin A per gram. Resistant to F and TMV. Vigorous indeterminate; needs staking and tying. NEW! ⑤ A=.2g, $1.50, B=.4g, $3.00, C=1g, $6.00, D=2g, $12.00, E=4g, $24.00.

4288 Sweet Chelsea Cherry (68 days) Ind. Even sweeter and heavier-yielding than our old favorite Sweet Cherry. Round fruits are larger than most other cherries, yet produce luscious fruit of almost impeccable appearance relatively early and throughout the season. Wide disease resistance, including TMV and F. ④ A=.2g, $1.20, ~75 seeds, B=.4g, $2.00, C=1g, $5.00, D=2g, $8.00, E=4g, $15.00.

4296 Super Sweet 100 Cherry (78 days) Ind. Like Sweet 100, only with more disease resistance. Very popular hybrid cherry tomato ripens clusters of 1" round sweet fruits. Should be staked. I like it the best of all the red cherries. Will split in rainy conditions. Resistant to V and F1. ⑤ A=.2g, $1.50, ~130 seeds, B=.4g, $3.00, C=1g, $6.00, D=2g, $12.00, E=4g, $24.00.

Seeds per packet for herbs are approximate. They are intended as guides, not guarantees, because we pack by weight, not by count. **Available in four sizes except where noted. Weights for each size are listed after each item; prices are in a box at the top of each page.**

Some herbs are customarily grown from divisions or cuttings because they cannot come true from seed, such as French tarragon (available from our Trees catalog), scented thymes and flavored mints; or require fall sowing of fresh seed, such as sweet cicely and angelica.

See chart on p. 53 for uses and cultural information. A botanical index appears on p. 70.

Prices for all culinary and medicinal herbs:
A=80¢, B=$2.00, C=$5.00, D=$12.00

CULINARY HERBS

We divide our herbs into two sections: culinary and medicinal. Several listed in the culinary section also have healing uses (Mint, Rosemary, Sage) and many others owe their traditional culinary use to digestive or preservative properties.

4406 Anise *Pimpinella anisum* Annual bears seeds with subtle licorice overtones and a spicy warming flavor. Drunk as a tea in the Middle East. Crush seeds to release full flavor. Used in baking, an essential ingredient in our Springerle. Like many other culinary seeds, anise helps ease indigestion, gas and colic. Also relaxes dry tight coughs. Plant in average-to-rich soil. Sets small white umbel flowers in July which ripen their seed in August and September. 1-3' tall. ② A=.5 gram, ~100 seeds, B=2g, C=8g, D=40g. 5,600 seeds/oz.

BASIL *Ocimum basilicum*

Indispensable culinary herb has been in cultivation for more than 3,000 years. Direct seed when soil warms in late spring or transplant after danger of frost in well-drained moderately rich soil. Young seedlings heavily watered in cool cloudy conditions are vulnerable to damping off. Water sparingly at first. Use row covers to enhance early season vigor and speed maturity. Thin to 8-12", top mature plants to induce branching which will increase your total yield. Harvest before plants blossom. Absolutely intolerant of frost, damaged by temperatures in the 30s. Except where otherwise indicated, all of our basil seed has been tested for fusarium and the sample tested found to be fusarium-free. Such a result, while not guaranteeing the entire lot is fusarium-free, improves your odds. See also **#4728**

4414 Sweet The heaviest-yielding variety, recommended for drying, all-around great eating, and large-scale pesto production. Our best-selling herb, 2997 packets last season. ② A=4g, ~2,400 seeds, B=28g, C=112g, D=336g. 17,750 seeds/oz.

4418 Genovese The choice of many connoisseurs for making pesto. Also called Perfumed Basil. Leaves are slightly smaller and finer than Sweet Basil with more aroma and potency. "Talk about prolific and tasty, and it took transplanting really well," says Susan MacLeod of NOFA-NH. ②③ A=2g, ~1,450 seeds, B=10g, C=40g, D=160g. 20,500 seeds/oz.

4422 Mammoth This lettuce-leaf type has very large ruffled leaves especially suitable for drying or stuffing. Flavor similar to sweet basil. ② A=1g, ~600 seeds, B=7g, C=28g, D=84g. 17,000 seeds/oz.

4430 Spicy Bush *O. b. minimum* This marvelous little basil grows to about 8" and maintains a compact mound of light green leaves and white flowers. Its leaves are small, thin and strongly scented. Great as an ornamental border, in a windowbox, or as an indoor potted plant which can be snipped for culinary use. *Not tested for fusarium.* ③ A=.5g, ~420 seeds, B=5g, C=15g, D=60g. 24,000 seeds/oz.

4436 Anise Originally from Persia. Vigorous mulberry-tinted basil with anise fragrance makes highly decorative, tall, bushy plant. Slow to bolt. Great in Italian tomato sauces. Also used in Thai and various Mediterranean cuisines. *Not tested for fusarium.* ③ A=.5g, ~330 seeds, B=7g, C=28g, D=84g. 18,800 seeds/oz.

4442 Cinnamon Similar vigorous growth habit to anise basil, but with a purplish veining on its leaves, and a distinctive cinnamon scent. Use in Middle Eastern or Greek cuisine. *Not tested for fusarium.* ② A=.5g, ~300 seeds, B=4g, C=16g, D=48g. 17,000 seeds/oz.

4448 Lemon *O.b. citriodorum* Basil often used in bouquets for its intense lemon fragrance. Not as vigorous as Sweet Dani and more vulnerable to blight, but with a stronger truer lemon flavor. Great in fish dishes. Native to Thailand and Southeast Asia and featured in their cuisine. Early orders will get organically grown seed. Later orders will get commercial seed. ② A=.5g, ~375 seeds, B=4g, C=16g, D=48g. 21,000 seeds/oz.

4449 Sweet Dani Lemon 1998 AAS for its extraordinary vigor which manifests even in the seedling stage and continues through the summer. Tall upright plant reaching almost 30" is 2-3 times as vigorous as our other lemon basil, translating into much heavier yields of the large light green leaves without the necessity of extra coddling. We didn't find it quite as lemony as standard lemon basil. ⑤ A=.5g, B=1.5g, C=4.5g, D=13.5g.

4450 Lime Basil *O. americanum* Stood out in our 1997 basil trial, imparting a robust lime fragrance to the patch. More vigorous than lemon basil, darker green leaves with a stronger, limier flavor. **BACK!** ① A=.25g, ~175 seeds, B=1g, C=4g, D=16g. 20,000 seeds/oz.

4456 Red Rubin More vigorous than Purple Ruffles. Highly ornamental dark purplish-bronze foliage. The green leaf throwbacks have been mostly bred out of this improved strain. A salad of red basil leaves and yellow tomatoes is stunning for its color contrast. ③ A=.5g, ~375 seeds, B=2g, C=10g, D=30g. 21,000 seeds/oz.

4462 Purple Ruffles Deep purple plants with serrated and crinkled leaves for striking visual contrast in the herb garden. Not a vigorous grower in our climate but will reach a height of 18" in the heat of summer. AAS. ⑥ A=.25g, ~175 seeds, B=1g, C=4g, D=12g. 19,750 seeds/oz.

4506 Chervil *Anthriscus cerefolium* Greek nobles referred to it as *khairephyllon*, or "leaf of joy," and carried sprigs to bless their friends. Superior European strain of this annual grows vigorously and is slow to bolt. Delicate lacy leaves with distinct flavor good in soups, with fish or asparagus. Essential ingredient in mesclun. Direct seed before a rain in early spring or summer in rich well-drained soil with light but constant moisture. Leaves are ready to harvest 6-8 weeks after sowing. In warmer locations performs best as a fall crop. ② A=1g, ~440 seeds, B=28g, C=112g, D=448g. 12,500 seeds/oz.

4512 Chives *Allium schoenoprasum* Hardy perennial. 1-2' hollow grasslike leaves enhance any dish with their subtle onion flavor, and are one of the best treats of very early spring. Lilac-colored flowers bloom in June and July, lovely in arrangements fresh or dried, also can be eaten. Used in Asia as a remedy for colds and flu. For best production, grow in well-drained well-watered soil and divide clumps every few years. Can be brought inside for the winter. Zone 3. ③ A=.5g, ~450 seeds, B=7g, C=28g, D=112g. 26,000 seeds/oz.

4518 Cilantro *Coriandrum sativum* Seeds were found in King Tut's tomb and discussed in ancient Sanskrit texts. Useful for its fresh green foliage, its dried seeds (coriander) and its edible flowers. This strain does not bolt as readily as those intended for seed production. Produces leaves in generous quantity which are an essential flavoring in Indian, Chinese, Southeast Asian, North African and Latin American cooking. Although some people do not care for its odor, it accentuates soups, salsas and bean dishes like no other herb. Annual grows to 2' with rosy lavender blooms. Make succession plantings in average well-drained soil and keep watered for lushest leaf production. In warm locations will stand longest as a fall crop. Thin early. Our second-most popular herb, we sold more than 2,450 packets. ③ A=2g, ~120 seeds, B=28g, C=112g, D=448g, $8.00. 1,700 seeds/oz.

4519 Cilantro OG *C. s.* As above, except seed organically grown. A=1g, ~60 seeds, B=14g, C=56g, D=224g. 1,700 seeds/oz.

DILL *Anethum graveolens*

Name derived from the Norse *dilla*, meaning to lull, as the plant is said to have soothing properties. Charlemagne used dill oil at banquets to stop hiccups and belching among his guests. The Puritans chewed dill seed to keep their stomachs from grumbling during long church services. Best known in this country for pickling, but essential for Russian, Polish and Hungarian cuisine. Annual, sometimes classed as biennial, grows to 4'. Upright plant branches out from single stalk; the feathery leaves known as dill weed. Likes well-drained moderately rich soil.

4530 Bouquet Bouquet is usually grown for dill weed production because its leaves are sweeter and more refined than those of Mammoth. Foliage should be harvested early, before seed stalks mature. Growers will like its performance in packs. ②③ A=4g, ~2,800 seeds, B=28g, C=224g, D=448g, $8.00. 20,000 seeds/oz.

4536 Fernleaf 1992 AAS. A dwarf variety suitable for small gardens or patio containers, Fernleaf grows only half as tall as other varieties and is very slow to go to seed. As of September, most of our May planting had not yet bolted, and its abundant, piquant foliage was still suitable for harvesting. Multibranching plants spread 18-24". ⑥ A=.5 gram, ~470 seeds, B=2g, C=6g, D=18g. 26,500 seeds/oz.

4542 Mammoth Variety generally grown for its seeds. Can also be used as dill weed, but the foliage is slightly darker, coarser and stronger-tasting than that of Bouquet. Otherwise, differences between the two in plant height and habit are very subtle. ②③ A=4g, ~2,800 seed, B=28g, C=224g, D=448g, $6.00. 20,000 seeds/oz.

FENNEL *Fœniculum vulgare*

Genus gets its name from the Latin for hay, referring to the smell of the foliage. Perennial grown as an annual with a rich licoricey taste. Tender stalks and leaves are good for relishes, salads, and garden munches; leaves and seeds excellent with fish. Seeds used in sweets, baked goods & beverages. Prefers rich well-drained slightly limey soil.

4556 Zefa Fino Bulbing type. 3' with edible blue-green stems and feathery green leaves. This strain, bred at the Swiss Federal Research Station, is very slow bolting. A spring planting will stand almost all summer. Thin to approximately 10" apart in 18" rows. ④ A=.5g, ~120 seeds, B=3g, C=9g, D=27g. 7,000 seeds/oz.

4566 Bronze Slow grower with very thin stems is appreciated for its striking feathery bronze foliage. Decorative and delicious. An intriguing addition to mesclun. Seed grown without chemical fertilizers or pesticides. ① A=.2g, ~60 seeds, B=.6g, C=3g, D=15g. 8,000 seeds/oz.

4576 Garlic Chives *Allium tuberosum* Also known as Chinese chives or Chinese leeks. 1' chive-like herb tastes like garlic and can be used as garlic substitute in salads and sautéed vegetables. White flowers may be eaten or used in dried arrangements. Sow thinly in spring, harvest sparingly till plants are vigorous. Perennial, but protect in cold areas. Easier to bring indoors for winter than chives. Zone 4. ③ A=.5g, ~105 seeds, B=14g, C=56g, D=168g. 6,000 seeds/oz.

4592 Lovage *Levisticum officinale* Leaves have a strong celery taste, and are used to flavor soups, stews and casseroles. Second-year plants are best for drying. Formerly used to mask the bitter herbs in medicinal concoctions. Has been used as a love charm. Umbelliferous perennial grows 3-6'. Likes moist rich deep well-drained soil. Zone 4. ③ A=.5g, ~145 seeds, B=4g, C=16g, D=48g. 7,800 seeds/oz.

4616 Sweet Marjoram *Origanum majorana* Grown as an annual in the North. 1' plant with grey-green rounded leaves of enchanting sweet fragrance. Cut often to prevent flowering. Use fresh or dried. Subject to damping off; do not overwater. Likes well-drained dry soil. ②③ A=1g, ~6,000 seeds, B=7g, C=28g, D=84g. 169,600 seeds/oz.

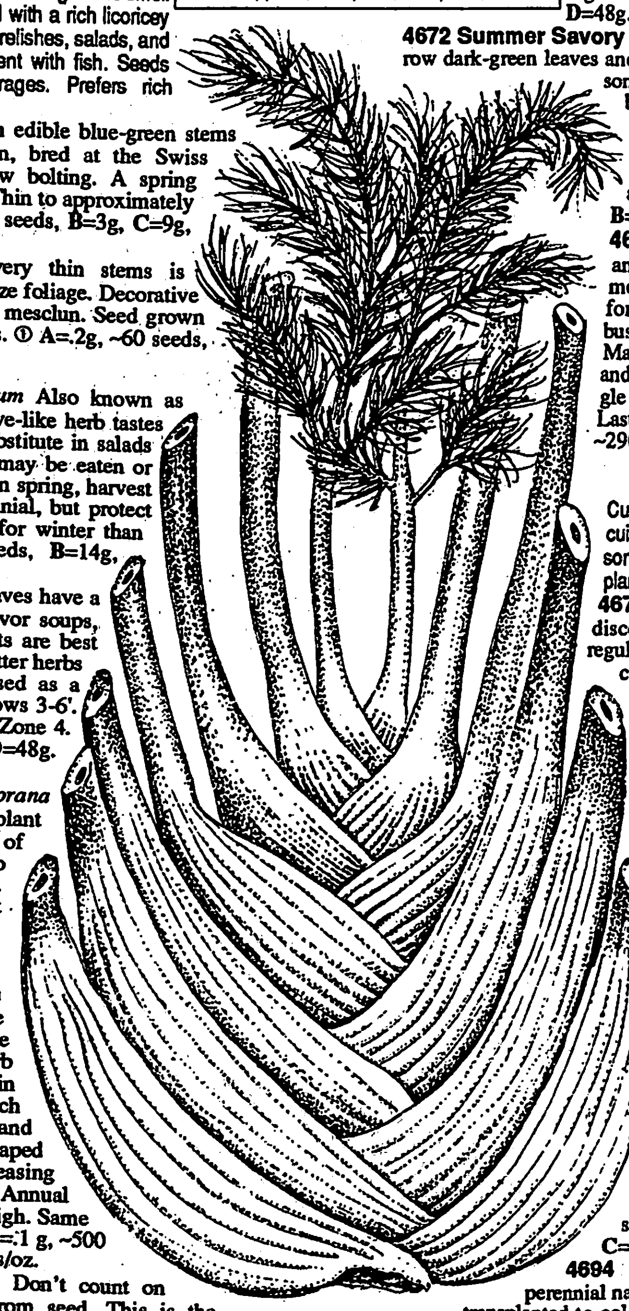
4624 Green Magic Mexican Tea *Chenopodium botrys* In our search for the best epazote we found this close relative which we prefer to the better-known herb *(C. ambrosioides)* because it is milder in flavor and more ornamental, yet has much the same uses in Mexican bean dishes and sauces. Its foliage, though oakleaf-shaped rather than serrated, still emits the pleasing pungent aroma characteristic of epazote. Annual thrives in rich soil, growing up to waist high. Same genus as lamb's quarters and quinoa. ③ A=.1 g, ~500 seed, B=.3g, C=3g, D=15g. 140,000 seeds/oz.

4632 Common Mint *Mentha spicata* Don't count on specific types of mint to come true from seed. This is the common tea mint. Can be grown directly in pots indoors in winter. Keeping it in containers will check its invasive tendencies. Likes moist soil, full sun or partial shade. Perennial to Zone 4. ②③ A=.1g, ~1,200 seeds, B=1g, C=3g, D=9g. 341,000 seeds/oz.

4646 Greek Oregano *Origanum heracleoticum* This is the oregano to use in pizzas and other Mediterranean dishes. Low-growing plant with fragrant dull green and purple leaves and white flowers. Start indoors in spring for best results. Likes light well-drained soils. Will lose potency if soil is overfed. Hardy to Zone 4. ② A=.05g, ~500 seeds, B=.15g, C=.6g, D=3g. 301,000 seeds per oz.

4656 Rosemary *Rosmarinus officinalis* Seed is again available for this beloved tender perennial growing to 3-4'. Cannot withstand temperatures below 17°, may be wintered over indoors if kept cool and moist. Try near a cool basement window and keep misted. Dark grey-green needle-like leaves conserve water, likes dry soil. Blossoms range from deep blue to pale pink or white. Likes alkaline soil; peat pots are too acidic to be a good starting medium. Not a good germinator—30% is average. Zone 8. **BACK!** ② A=.1g, ~85 seeds, B=.3g, C=1.2g, D=4.8g .24,450 seeds/oz.

4664 Broadleaf Sage *Salvia officinalis* Grows up to 3', with blue flowers. Used fresh or dried. Tasty in stuffing blends, with eggs, cheese, poultry, pork. Fuzzy grey oblong leaves on stems which grow woody with age; plants should be replaced every 3 years. Likes well-drained rich soil with good nitrogen content. Zone 4. Preliminary reports indicate a good crop making us optimistic about being able to supply seed again. ② A=1g, ~125 seeds, B=7g, C=28g, D=84g. 3,450 seeds/oz.



Prices for all culinary and medicinal herbs:
A=80¢, B=$2.00, C=$5.00, D=$12.00

4665 Broadleaf Sage OG *S. o.* As above except organic seed. ③ A=1g, ~125 seeds, B=4g, C=16g, D=48g. 3,450 seeds/oz.

4672 Summer Savory *Satureja hortensis* Annual grows to 1½' with narrow dark-green leaves and lavender flowers. Cut often during growing season, before blossoms appear. Sow in spring next to beans, their complement in the kitchen as well, in well-drained soil. Use with dry or green beans, rice, stuffings, or in onion soup. Left to bloom, it becomes beautiful in fall with dark purple foliage and lavender flowers. ③ A=1g, ~1,800 seeds, B=14g, C=56g, D=224g. 51,500 seeds/oz.

4674 Winter Savory *S. montana* Leaves shinier and thicker, stronger and more pungent than summer savory. Can be used as a pepper substitute or for flavoring dry beans or sauerkraut. Hardy dwarf bush perennial grows 6-12", thriving in dry poor soil. Makes an attractive border with its tiny green leaves and light lilac flowers. Tea used medicinally as a gargle for sore throats and to calm indigestion. Zone 3. Last offered by Fedco in 1993. **BACK!** ④ A=.1g, ~290 seeds, B=.4g, C=2.4g, D=9.6g. 2,940 seeds/g.

SHISO *Perilla frutescens*

Curly leaves have sharp interesting flavor used in Asian cuisine. A specific in Chinese medicine for seafood poisoning, *Zi Su*. Cannot stand frost; start indoors and transplant out in warm moist well-drained soil.

4678 Cumin-Scented Perilla A delightful discovery from our 1999 trials. Grows and colors like regular green shiso. However, the characteristic curved frilly leaves have a decided cumin flavor and can be used to spike salads or in Asian cuisine. Soaking the seed would probably speed germination, but was not as fussy as the red in our trials. Seed organically grown in Oregon. NEW! ① A=.25g, ~240 seeds, B=1g, C=4g, D=16g. 27,000 seeds/oz.

4680 Red Shiso Annual also known as perilla. Introduced from Japan in the 1850s. Its extremely ornamental purplish-red cinnamon-scented leaves are used in Japanese cuisine in sushi, sweet and sour sauces, and stir-fry. Grows up to 4'. To break dormancy, freeze and thaw the seed several times over a 21-45 day period. Soak seed several days or until they sprout. Move to indoor flats, then transplant into warm soil. ⑤ A=.5g, ~600 seeds, B=7g, C=21g, D=63g. 33,900 seeds/oz.

4686 German Thyme *Thymus vulgaris* Creeping low-matted perennial to 12"brings depth of flavor to soups, gravies, casseroles. Likes well-drained light dry alkaline soil. Its fine root system makes thyme difficult to move around the garden. Said to calm the nerves, soothe headaches. ②③ A=.2g, ~700 seeds, B=3g, C=15g, D=45g. 98,200 seeds/oz.

4694 Watercress *Nasturtium officinale* Hardy perennial native to Europe. Seeds may be started indoors and transplanted to cold frame; keep watered. Seeds may also be direct sown in soggy stream bank. Likes sunshine. Keep picked; it gets bitter if flowers are allowed to form. Use in salads and soups; rich in vitamins and minerals. ③ A=.25g, ~1,375 seeds, B=1g, C=14g, D=42g. 155,400 seeds/oz.

Our Mailing List

We share peoples' concern about the proliferation of junk mail, and we do not want to be a part of the problem. If we are sending you too many catalogs, let us know so we can save both trees and money. Occasionally we receive requests for parts or all of our mailing list. We never give out your name without your prior permission and we never give out the names of people who've asked for our catalog but have not yet ordered from us. We sometimes receive requests from individuals seeking other folks or established coops with whom to order. Less frequently, like-minded organizations ask us to trade names. On the front of the order form is a place for you to indicate when, if ever, we have your permission to give out your name. Please tell us if we can give your name to other businesses or organizations, and/or to individuals seeking to form an ordering group or coop.

"Thank you for the inspired example and leadership that Fedco provides. It is more than a pleasure to order from Fedco. Thanks for your stand on transgenic cultivars." Kerry Sullivan, PA

Prices for all culinary and medicinal herbs:
A=80¢, B=$2.00, C=$5.00, D=$12.00

MEDICINAL HERBS

People are rediscovering traditional herbal home remedies. Consult Deb Soule's *A Woman's Book of Herbs* (#6698) and Penelope Ody's *The Complete Medicinal Herbal* (#6520) or other herbals for more detailed information. See also: Fennel, Mint, Rosemary, Sage in the culinary section; #5084 Pacific Beauty Calendula, as well as Oats, Mammoth Red Clover, and Alfalfa in the cover crops section. **See chart on p. 53 for uses and cultural information. A botanical index appears on p. 70.**

Under the tutelage of Deb Soule, we've steadily increased our selections and our lore in tandem. We also work with Gail Edwards in our continued commitment to make more healing plants available to you. Other medicinal herbs, including Black Cohosh and Comfrey, are available from our Trees catalog.

Statements about medicinal use of plants have not been evaluated by the FDA, and should not be used for the diagnosis, treatment, cure or prevention of any ailment. Before using or ingesting any medicinal plant, consult a healthcare practitioner familiar with botanical medicine.

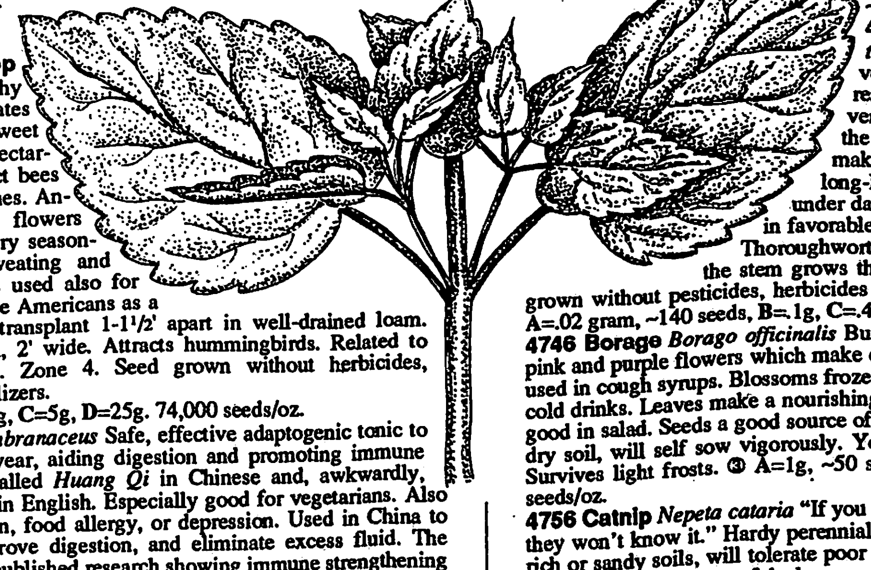
4708 Anise Hyssop *Agastache fœniculum* Bushy midwestern native permeates the air with the smell of sweet licorice. Long-blooming nectar-laden purple flowers attract bees and make excellent garnishes. Anise-scented foliage and flowers delightful for tea or culinary seasoning. The tea induces sweating and strengthens the heart, was used also for fevers, colds, and by Native Americans as a cough medicine. Sow or transplant 1-1½' apart in well-drained loam. Perennial can grow 3' tall, 2' wide. Attracts hummingbirds. Related to neither anise nor hyssop. Zone 4. Seed grown without herbicides, pesticides or chemical fertilizers.
① A=.2g, ~520 seeds, B=1g, C=5g, D=25g. 74,000 seeds/oz.

4714 Astragalus *A. membranaceus* Safe, effective adaptogenic tonic to use daily throughout the year, aiding digestion and promoting immune system health (*wei qi*). Called *Huang Qi* in Chinese and, awkwardly, Chinese Milk Vetch Root in English. Especially good for vegetarians. Also used in cases of exhaustion, food allergy, or depression. Used in China to increase assimilation, improve digestion, and eliminate excess fluid. The American Cancer Society published research showing immune strengthening among patients taking astragalus; other clinical research shows antibacterial effects, increased white blood cell production and decreased negative side effects for patients undergoing chemo and radiation therapies. Small pea-like flowers on upright stems with vetch-like leaves. 1½-3' perennial. Plant in deep well-drained slightly alkaline soil. Harvest 4-6 year-old roots in the fall. Zone 4. Seed grown without herbicides, pesticides or chemical fertilizers. ① A=.2g, ~10 seeds, B=.6g, C=2.4g, D=7.2g. 1,400 seeds/oz.

4728 Sacred Basil *Ocimum sanctum* Native to India and used in its cuisine as well as in Thai cooking. Spicier than other basils and quicker to go to seed, but still usable when covered with purple flowers. Said to strengthen the immune system and to increase oxygen uptake in the brain. Used in Ayurvedic medicine as a poultice on acne, ringworm, eczema and insect bites. Grow like other basils, stands a bit more cold. Seed grown without herbicides, pesticides or chemical fertilizers. *Not tested for fusarium.* ① A=.1g, ~180 seeds, B=1g, C=7g, D=21g. 50,000 seeds/oz.

4734 Wild Bergamot *Monarda fistulosa* A great addition to the perennial border in light dry alkaline soils. The 3-4' plants bear highly ornamental lavender-fringed blossoms. Leaves impart pungent aroma to teas, potpourri, meats and beans. Traditionally used as an aromatic stimulant to improve digestion and increase perspiration. Native Americans employed it internally to combat colds and flus and externally to calm skin eruptions. Zones 3-9. ② A=.1g, ~285 seeds, B=.4g, C=2.8g, D=8.4g, 81,000 seeds/oz.

4738 Blessed Thistle *Cnicus benedictus* Also known as St. Benedict Thistle, Holy Thistle and Sacred Thistle. A hairy annual featuring branched bristly red stems, long spiny leaves with sinuate margins, and spine-encircled yellow flowers, blooming from July through September. Its leaves, flowers and roots are edible, the latter boiled as a vegetable. More than one herbalist we know uses it as a liver tonic or digestive bitter. It is said to stimulate gastric and bile secretions, to improve mother's milk, and to be good for hormonal imbalances. Originally from the Mediterranean, it prefers warm dry sunny locales with poor soil. *May be emetic in large doses.* Grows 2' tall and 1-1½' wide. Seed organically grown. ① A=.3g, ~12 seeds B=.9g, C=3.6g, D=10.8g.



4742 Boneset *Eupatorium perfoliatum* Originally used for "boneset fever." Still employed as a traditional flu remedy because of its ability to lower fevers, break up congestion and stimulate the immune system. The 3-5' perennial makes a late season display of large white long-lasting corymbs. A good ornamental under damp garden conditions—will naturalize in favorable moist areas. Also known as Common Thoroughwort, because its leaf bases are joined so the stem grows through them in an unusual way. Seed grown without pesticides, herbicides or chemical fertilizers. Zones 3-8. ① A=.02 gram, ~140 seeds, B=.1g, C=.4g, D=1.2g, 200,000 seeds/oz.

4746 Borage *Borago officinalis* Bushy 2' plants produce many tiny blue, pink and purple flowers which make colorful additions to salads and can be used in cough syrups. Blossoms frozen in ice cubes lend cucumber flavor to cold drinks. Leaves make a nourishing tea for nursing mothers, and are also good in salad. Seeds a good source of GLAs. Annual likes sun, prefers poor dry soil, will self sow vigorously. Young plants are easy to move around. Survives light frosts. ③ A=1g, ~50 seeds, B=14g, C=56g, D=224g. 2,000 seeds/oz.

4756 Catnip *Nepeta cataria* "If you set it, the cats will get it; if you sow it, they won't know it." Hardy perennial, will self sow once established. Likes rich or sandy soils, will tolerate poor soil and drought. Calms mild stomach disorders, produces restful sleep and relieves fever when added to teas. Catnip has been grown in British gardens for more than seven centuries and in North America for more than three. Tovah Martin writes that rats are reputed to despise it, so it is sometimes used as a companion plant for melons and squashes. Zones 3-8. ③ A=1g, ~1,400 seeds, B=7g, C=28g, D=112g. 41,000 seeds/oz.

4766 German Chamomile *Matricaria recutita* Annual easily raised from seed in moist well-drained soil. Plant densely so plants support each other. Planting in rich soil or cutting the foliage reduces flower production. More floriferous than perennial (Roman) chamomile. Flower heads ready to harvest them. Chamomile tea calms nerves and soothes the stomach. ② A=1g, ~9,500 seeds, B=3g, C=15g, D=45g. 272,000 seeds/oz.

Prices for all culinary and medicinal herbs:
A=80¢, B=$2.00, C=$5.00, D=$12.00

CONEFLOWER *Echinacea spp.*

Possibly the best-known of the medicinal herbs, widely used as an immune system stimulant. Species contain slightly differing constituents, but all are antibacterial and antiviral. Ethnobotanists have identified at least 14 native North American nations which used Echinacea for similar purposes: sore throat, toothache, infection, wounds, snake bite and skin disorders, as well as hair combs and children's toys. Joanna likes to tincture flowers and leaves in August, and use the same alcohol to tincture seeds and third-year roots in October. A wonderful garden plant: late summer blooms attract butterflies and make good cutflowers; dew collects in the spiral mandala coneheads. Zones 3-10.

4774 Narrow-Leaved Coneflower *E. angustifolia* Smallest and least vigorous of all the species, but with more tongue-tingling properties than others. Small taproots can be difficult to harvest. Overharvesting in the wild by zealous collectors has endangered this species, so cultivate some for your use. Short rose-pink petals, spreading and toothy. Tapered hairy leaf. 6-20" tall. Native to dry prairies west of the Mississippi, Saskatchewan to Texas. ③ A=.2g, ~60 seeds, B=.6g, C=1.8g, D=5.4g. 9,000 seeds/oz.

4776 Purple Coneflower Sustainably Grown Seed *E. purpurea* Large, showy, vigorous and hardy, a popular garden perennial since the early 1700s. Large fibrous roots are easy to harvest. Colorful flowers range from rose to lavender to purple. Long downward curving petals around large spiny centers. Broad toothed leaf. Easy-to-grow, 2-4' tall, native to a wide range of habitats, from Appalachian woods to midwest prairies. Growing in popularity each year and one of the hardest to keep in stock for late orders. ①③ A=1g, ~260 seeds, B=4g, C=16g, D=48g. 7,500 seeds/oz.

4777 Purple Coneflower Commercial Seed *E. p.* ①② A=1g, ~260 seeds, B=4g, C=28g, D=112g. 7,500 seeds/oz.

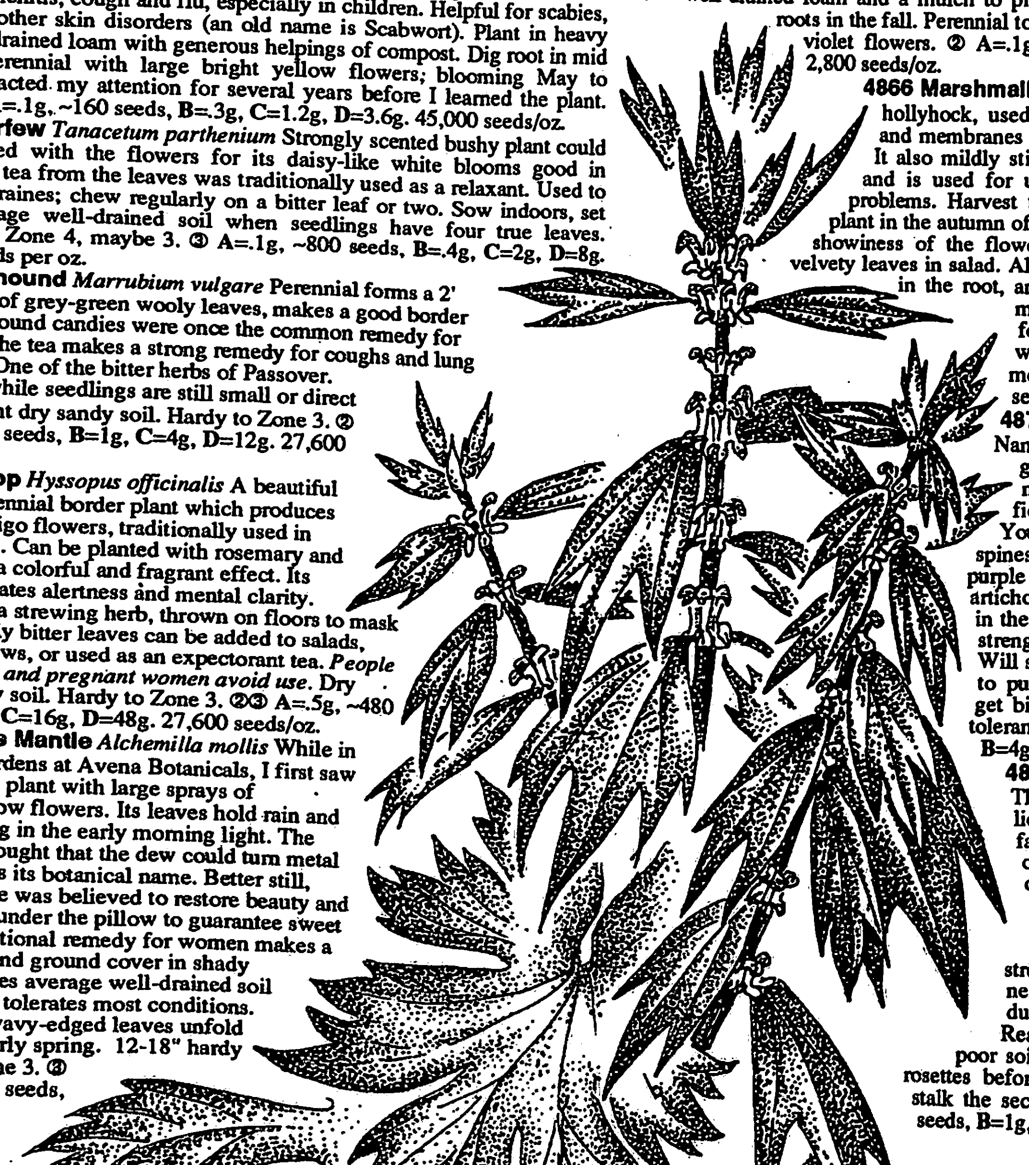
4782 Elecampane *Inula helenium* Large dramatic plant is an excellent lung tonic. Important to the ancient Greeks, said to have sprung from the tears of Helen of Troy. Mucilaginous root relaxes lungs and helps clear mucous from them, calms cough. Antibacterial and antifungal, also used for asthma, bronchitis, cough and flu, especially in children. Helpful for scabies, herpes and other skin disorders (an old name is Scabwort). Plant in heavy moist well-drained loam with generous helpings of compost. Dig root in mid fall. 5-8' perennial with large bright yellow flowers; blooming May to August, attracted my attention for several years before I learned the plant. Zone 3. ③ A=.1g, ~160 seeds, B=.3g, C=1.2g, D=3.6g. 45,000 seeds/oz.

4786 Feverfew *Tanacetum parthenium* Strongly scented bushy plant could also be listed with the flowers for its daisy-like white blooms good in bouquets. A tea from the leaves was traditionally used as a relaxant. Used to prevent migraines; chew regularly on a bitter leaf or two. Sow indoors, set out in average well-drained soil when seedlings have four true leaves. Perennial to Zone 4, maybe 3. ③ A=.1g, ~800 seeds, B=.4g, C=2g, D=8g. 230,000 seeds per oz.

4796 Horehound *Marrubium vulgare* Perennial forms a 2' bushy stand of grey-green wooly leaves, makes a good border plant. Horehound candies were once the common remedy for coughs and the tea makes a strong remedy for coughs and lung congestion. One of the bitter herbs of Passover. Transplant while seedlings are still small or direct seed into light dry sandy soil. Hardy to Zone 3. ② A=.2g, ~190 seeds, B=1g, C=4g, D=12g. 27,600 seeds/oz.

4806 Hyssop *Hyssopus officinalis* A beautiful aromatic perennial border plant which produces spikes of indigo flowers, traditionally used in cough syrups. Can be planted with rosemary and lavender for a colorful and fragrant effect. Its aroma stimulates alertness and mental clarity. Was used as a strewing herb, thrown on floors to mask odors. Slightly bitter leaves can be added to salads, soups and stews, or used as an expectorant tea. *People with epilepsy and pregnant women avoid use.* Dry light or sandy soil. Hardy to Zone 3. ②③ A=.5g, ~480 seeds, B=4g, C=16g, D=48g. 27,600 seeds/oz.

4826 Lady's Mantle *Alchemilla mollis* While in the lovely gardens at Avena Botanicals, I first saw this attractive plant with large sprays of greenish-yellow flowers. Its leaves hold rain and dew, sparkling in the early morning light. The alchemists thought that the dew could turn metal into gold; thus its botanical name. Better still, Lady's Mantle was believed to restore beauty and a leaf tucked under the pillow to guarantee sweet dreams. Traditional remedy for women makes a good border and ground cover in shady locations. Likes average well-drained soil and moisture; tolerates most conditions. Softly hairy wavy-edged leaves unfold like fans in early spring. 12-18" hardy perennial. Zone 3. ③ A=.05g, ~145 seeds, B=.2g, C=1g, D=4g. 82,360 seeds/oz.



4836 Lavender *Lavandula angustifolia* Also known as English lavender. Famous for centuries for its sweet soothing lasting scent. Flowers used dried in wreaths and arrangements, and as a tea for headache or exhaustion. Hardy perennial reaching 3', woody shrublike plant with grey-green foliage and lavender flowers growing on long-stemmed spikes. Likes well-drained alkaline sandy soil. Texts claim hardy to Zone 5, but our patch in Zone 3 has survived the last eight winters, including 1996-7 which was rough on many other perennials. ②③ A=.3g, ~315 seeds, B=3g, C=15g, D=45g. 29,975 seeds/oz.

4846 Lemon Balm *Melissa officinalis* Melissa is the Greek word for bee; the plant in flower attracts them. Perennial growing to 2', its lemony leaves, yellow-green, heart-shaped and shiny, should be gathered before flowering. Delicious as a tea, with fruit, or dried for sachets. Relaxing, calming, comforting and uplifting to the spirit. Likes very well-drained fertile soil; wet ground may winterkill it more than cold. Zone 4. ② A=.3g, ~550 seeds, B=3g, C=15g, D=45g. 53,250 seeds/oz.

4854 Lemon Mint *Monarda citriodora* A member of the bee balm genus, in the mint family. Native to Appalachia and related to Oswego Tea. The tiered pinkish-purple flower spikes of this showy 2-3' plant are long-lasting in fresh bouquets and can be dried for everlasting arrangements. Its lemon-scented leaves are delicious and commonly used to impart a coarse mint flavor with a hint of oregano to tea. Inhale the steam to relieve cold symptoms. Best in light moist soil. Annual. ③ A=1g, ~1850 seeds, B=7g, C=28g, D=84g. 52,500 seeds/oz.

4860 Licorice *Glycyrrhiza glabra* Sweet and soothing root contains glycosides similar to the body's own natural steroids. Beneficial for revitalizing adrenal glands after steroid drug therapy, stress, overwork or excess coffee. Good for colds and bronchitis; reduces throat irritation, yet an expectorant and anti-spasmodic. Also helpful for stomach ulcers and intestinal spasms. Adds sweetness, harmony and palatability to nearly any herbal combination. Give it lots of room so it can create the roots and runners you want. Weak competitor against weeds. Prefers sandy well-drained loam and a mulch to prevent heaving. Harvest 3-4 year-old roots in the fall. Perennial to Zone 4, grows 1^{1}/2-4', bears white to violet flowers. ② A=.1g, ~9 seeds, B=.3g, C=.9g, D=4.5g. 2,800 seeds/oz.

4866 Marshmallow *Althaea officinalis* Cousin to the hollyhock, used to soothe and soften irritated skin and membranes and to relieve stuck hacking coughs. It also mildly stimulates white blood cell production and is used for urinary tract infections and prostate problems. Harvest the root of this 4-6' tall ornamental plant in the autumn of the third year. Meanwhile, enjoy the showiness of the flowers through the summer or eat the velvety leaves in salad. All mallows contain soothing mucilage in the root, and marshmallow has the most, so it makes a great home-garden substitute for slippery elm. Steep roots in cold water for several hours. Plant in cool moist soil. Zone 4. ①② A=.4g, ~260 seeds, B=1.2g, C=3.6g, D=10.8g.

4872 Milk Thistle *Silybum marianum* Named for the bold white splashes on its glossy leaves, said to be from Mary's milk. Fast-growing 3-5' annual with fiercely beautiful leaves, up to 8x24". Young leaves are edible—remove spines first! Flower stalk puts out large purple thistle flowers; said to be eaten like artichokes. Silymarin, a compound found in the flowers and seeds, has been used to strengthen and regenerate liver tissue. Will self-sow; keep a pair of gloves handy to pull unwanted volunteers before they get big and prickly. Likes dry soil, very tolerant of drought. ① A=1g, ~40 seeds, B=4g, C=28g, D=84g. 1140 seeds/oz.

4884 Motherwort *Leonurus cardiaca* The genus Leonurus in Greek signifies lion's tail, to which the plant has a fanciful resemblance. Hardy perennial of the mint family grows 2-3' with dull green leaves having a pungent odor and rather bitter taste. Good bee plant. Pick when flowering for tea or herbal tincture. Believed to strengthen the heart muscle and relieve nervous tension. Used by women during transitional times in their lives. Readily self-sows even in relatively poor soil; pull up unwanted first-year basal rosettes before they put out their spiky flower stalk the second year. Zone 3. ① A=.2g, ~240 seeds, B=1g, C=3g, D=9g. 34,000 seeds/oz.

Prices for all culinary and medicinal herbs:
A=80¢, B=$2.00, C=$5.00, D=$12.00.

4896 Mugwort *Artemisia vulgaris* Deeply cut dark green leaves are light silvery-green underneath. Aromatic 2-6' perennial associated with the goddess Artemis and used by women since ancient times. Said useful for menstrual irregularities, and for stimulating liver and digestion. *Pregnant women avoid internal use.* Has been used for dream pillows, as a moth repellent, in beermaking, and for moxabustion. Makes a good homemade incense or smudge. Can be very invasive; small plants are easy to pull, but it also spreads by runners in moist soil, so keep it harvested. Tolerates dry or moist soil, but loves nitrogen. Zone 3. ③ A=.2g, ~1300 seeds, B=1g, C=7g, D=21g. 185,000 seeds/oz.

4900 Mullein *Verbascum thapsus* Soft and fuzzy grey-green Mullein leaves, with their mucilaginous properties that soothe and lubricate tissue, do the trick on bronchitis and other respiratory ailments. Mullein flowers, infused in oil, are used externally for such common problems as earache, hemorrhoids, chilblain and rheumatism. A stately biennial, the leaves form a rosette the first year. Sends up a tall dramatic spike of small yellow flowers the second. Once common along Maine's roadsides, mullein has become noticeably less abundant. Gardeners can domesticate this striking ornamental. Favors well-drained slightly poor soil. Zone 3. ③ A=.1g, ~700 seeds, B=.4g, C=4g, D=12g, 7,000 seeds/g.

4908 Stinging Nettle *Urtica dioica* Used by biodynamic gardeners to increase the potency of neighboring herbs, and to stimulate humus formation. Young shoots and leaves are delicious steamed as spring greens, very high in minerals. Also makes a great hair rinse or dry chicken feed. Barbara Sempf, who gardens in St Albans, VT, says it "makes a wonderfully stinky nettle tea. Great stuff and not at all appreciated by the ladies who judge at our local field days. Alas." Perennial may spread if not harvested. Choose your spot carefully; the roots as well as the leaves can sting. Cooking or drying removes the sting. Plant in damp rich soil with high nitrogen content; especially likes composted manure piles or the leaky side of your lushest compost bin. Grows 3-6'. Zone 2. Seed collected from wild Maine compost piles. ① A=.2g, ~1,240 seeds, B=.6g, C=2.4g, D=7.2g. 175,000 seeds/oz.

4924 Pennyroyal *Mentha pulegium* Hardy groundcover plant is notorious for its insect-repellent properties and can be used to ward off mosquitoes and to repel fleas from pets. Strongly aromatic member of the mint family makes a potent tea. Pennyroyal's distilled oil can be toxic, but the tea rinse is safe for external use. *Caution: Should not be used by pregnant women.* Plant 6" apart to make a dense mat. The plants creep with only the lavender flower stalks rising above the ground. Perennial likes rich well-drained soil with good moisture. Mulch for winter protection in Zones 4 and 5. ③ A=.1 gram, ~1400 seed, B=.3g, C=1.5g, D=6g. 400,000 seeds/oz.

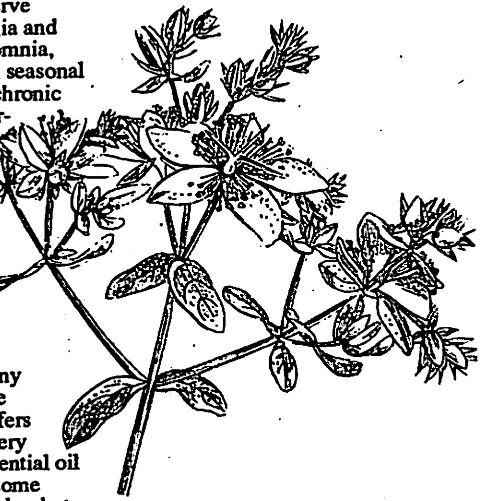
4936 Rue *Ruta graveolens* Graveolens means "strong smelling." Also known as Herb-of-Grace. Very attractive perennial used as an insect and deer repellent has blue-green foliage with delicate yellow flowers. Its leaves, aromatic and bitter, contain iron and rutin for strengthening blood and vessels. Calms heart palpitations, nervous indigestion and colic. European painters used to consume a great deal of it because they believed it was good for their vision! Indeed, it is used in eyewash to soothe tired eyes and relieve headaches from eyestrain. *Rue should never be ingested by pregnant women.* Several herbalists warn that large doses can cause pain and vomiting; also contact dermatitis in sensitive individuals. Ancients rubbed their arms in olive oil before harvesting to prevent dermatitis. Likes poor soil and needs good drainage. 2'. Zone 3. ③ A=.5g, ~300 seeds, B=2g, C=8g, D=24g. 16,300 seeds per oz.

4962 Baikal Skullcap *Scuttelaria baicalensis* A beautiful little perennial with a myriad of small violet monkshood-shaped blooms on a 1-2' subshrub, looks like a shiny rosemary with slender ovate leaves. A definite candidate for the rock garden, it tolerates drought and grows best in light well-drained soil. Important as the Chinese herb *Huang Qin*, 3-4 year roots are dried and used as a bitter sedative cooling herb that lowers fever, blood pressure and cholesterol levels while stimulating the liver; also used to stop bleeding. To encourage the roots' optimal medicinal powers, pinch buds and don't let flowers bloom. Seed grown without pesticides, herbicides or chemical fertilizers. Zone 3. NEW! ① A=.25g, ~155 seeds, B=1g, C=3g, D=12g. 18,000 seeds per oz.

4964 Mad-dog Skullcap *S. lateriflora* Often called Virginia Skullcap, native spreading perennial needs moist rich soil and likes partial shade. Herbalists claim it is an effective headache remedy, great for insomnia and both calms and strengthens the nervous system. Skullcap is used in daily teas as well as formulas for chronic conditions. Called Mad-dog because the tea was once used as a folk remedy for rabies. Enjoy its numerous small blue flowers from July through September or put the leaves in a pillow to induce restful sleep. 1-2' plant is hardy to Zone 4. ①③ A=.05g ~29 seeds, B=.2g, C=.8g. *Not available in size D, order size C.* 16,800 seeds/oz.

4972 Spilanthes *S. oleracea* When visitors at Shooting Star Farm taste a couple of spilanthes leaves, their reaction—either blissed contentment or horrified concern—is quick in coming. Spilanthes' remarkable tingling and mouth-numbing properties appear rapidly and last a while. Its common names—Salad Cress and Toothache Plant—tell us to use its bronzy-purple leaves in salad, or to chew the leaves and flowers for temporary pain relief. Its immune-stimulating properties, similar to echinacea's, are giving this herb a wider audience. Introduced from Brazil to North America in the 1860s, Spilanthes was commonly listed as Para Cress in seed catalogs a century ago but had mostly disappeared until the recent herbal revival. Spilanthes is highly frost-sensitive and must be started indoors in warmth and transplanted after all danger of frost. It adds unusual beauty with its low growth habit and rayless red flowers surrounded by yellow rings. Makes a colorful border planting in fertile moist soil as well as a good conversation piece and valuable herb. Seed grown in Maine without pesticides, herbicides or chemical fertilizers. ① A=.02 gram, about 60 seeds, B=.08g, C=.32g, D=.96g. 275,000 seeds/oz.

4980 St Johnswort *Hypericum perforatum* Pretty yellow flower of fields and meadows turns tinctures and oils deep red. Used as tea, tincture or infused oil for many nerve disorders, from neuralgia and sciatica to anxiety, insomnia, stress, mild depression, seasonal affective disorder and chronic exhaustion. Helpful during menstruation, postpartum and menopause. The oil is also cooling to sunburn and cuts, soothing to strained joints and muscles. Was even used in the Middle Ages for sword wounds! Likes nearly any soil. Small seedlings are very slow growing. Prefers well-drained dry soil; very drought tolerant but essential oil content increases with some moisture. 1-2' perennial hardy to Zone 3. *Regret we cannot ship to California where it is considered a noxious weed.* ③ A=.1g, ~1,200 seeds, B=.5g, C=5g, D=20g. 350,000 seeds/oz.



4984 Valerian *Valeriana officinalis* Known as Nature's Tranquilizer or Herbal Valium, valerian root is used to reduce tension and anxiety, alleviate insomnia, and relieve muscle spasms and uterine or bowel cramping. Harvest the roots in the fall of the second or later year. Early Greeks referred to valerian as "phu" (like our "phew"), because of the distinctive smell of the roots, described as fetid, musky, or the aroma of old sneakers. Widely used in Europe as a tranquilizer, both for adults and hyperactive kids. Avoid high doses for prolonged periods. Tall leafy 3-5' plant with clusters of honey-scented pale pink flowers. Remove flowers to hasten root development. Plant in moist soil about 1' apart. Hardy to Zone 3. ①② A=.2g, ~160 seeds, B=.6g, C=2.4g, D=7.2g.

4986 Blue Vervain *Verbena hastata* This 5-6' perennial grows naturally in the moist soils of thickets and meadows and will do well in similar garden conditions, sending up many terminal spikes of bristly blue-violet flower clusters the entire season. Although scraggly, it blends very well with many kinds of flowers by stretching its spikes amongst them. Herbalist Gail Edwards finds it "a powerful spiritual presence" and nervous system tonic. Similar to *Verbena officinalis*, but more alterative, Vervain acts mainly on the liver and lungs. Also used for menstrual disorders. Its roots are more active than its leaves. Light well-drained moist soil. Zone 3. Seed grown without pesticides, herbicides or chemical fertilizers. ① A=.1g, ~350 seeds, B=.4g, C=4g, D=12g, 100,000 seeds/oz.

4990 White Yarrow *Achillea millefolium* Flat-topped white flowers bloom June-August with an odd alluring scent that attracts bees and butterflies. One of the most popular herbs for colds and flu. A hot cup of tea induces a sweat to throw off heat and toxins. Also used to lower blood pressure, and to stanch internal and external bleeding. New research indicates yarrow may be helpful for hay fever or other allergenic mucosal reactions. Avoid large doses during pregnancy. Perennial grows 1-2', spreads slowly, preferring lean soil. Rich garden soil may produce lush 3' plants which need staking. Zone 2. ② A=.1g, ~700 seeds, B=1g, C=14g, D=56g. 200,000 seeds/oz.

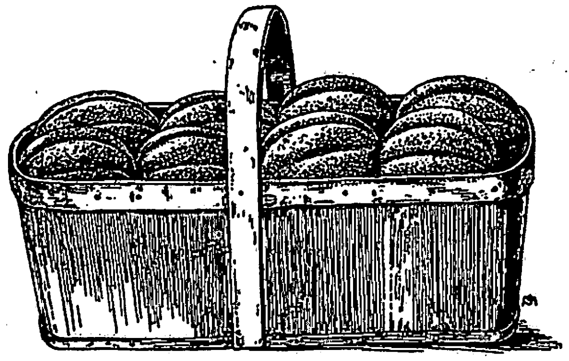
VEGETABLE PLANTING GUIDE

Vegetable	Catalog #	sds/oz	sds/100'	Pkt plants	distance apart	thin to	row spacing	seed depth	min soil temp °F	ideal soil temp	hardiness	planting date
Amaranth	3000-12	25000	1/16 oz	100'	3"	6"	18"	1/8"	60	70-85	T	June 1
Artichoke	3608	180	T	10 pl	3'	No	2'	1/2"	60	65-85	MH	tp late
Basil	4410-99,4728	18000	5g	10-80'	1/2"	4"	18"	1/4"	65	70-85	VT	June 1
Bean, Bush, Dry	200-499	80	8 oz	25'	2"	3"	2-3'	1"	60	70-85	T	late May
Bean, Fava	298	17	1#	12'	4-6"	No	2-3'	1"	50	60-80	H	April
Bean, Pole	286-92,406-19	65	4 oz	10 pl/oz	6/pole	3/pole	3-4'	1"	60	70-85	T	late May
Bean, Soy	488	110	4 oz	14'	3"	No	3'	1"	60	70-90	T	June 1
Beet	2100-99	2200	1/2 oz	20'	1"	2-4"	12-18"	1/2"	50	65-85	H	Apr-July
Broccoli	3310,3400-75	7000	5g	.5g=10'	1"	24-30"	30"	1/4"	50	65-85	MH	tp May/June
Brussels Sprouts	3480	5000	5g	.5g=10'	1"	24-30"	24-30"	1/4"	50	65-85	H	tp May/June
Cabbage	3320-39,3500-40	7500	5g	.5g=10'	1"	24-30"	24-30"	1/4"	50	65-85	MH	tp May/June
Carrot	2000-99	18000	10g	1/8oz=35'	1/4"-1/2"	1"	16-24"	1/2"	50	65-85	H	Apr-July
Cauliflower	3348,3544-79	8000	4g	.5g=12'	1"	30"	30-36"	1/4"	55	65-85	MH	tp May/June
Celery/Celeriac	3610-49	75000	T	500	8"	No	2-3'	1/8"	50	55-70	T	tp June 1
Chard	3030-49	2000	1/2 oz	12'	1"	3"	18-24"	1/2"	50	65-85	H	ASAP
Chicory	2640-59	1800	T	300 pl	1'	No	2'	1/8"	50	60-85	H	tp late June
Chinese Cabbage	3276	9500	1/4 oz	25'	1/2"	12-18"	24-30"	1/4"	50	70-95	MH	late May
Corn	500-699,5930-49	155	4 oz	50'	2-3"	1'	3'	1"	60	70-95	T	late May
Cucumber	1200-1399	1100	1/2 oz	11'	2"	4"	4'	1/2"	60	75-95	VT	June 1
Eggplant	3650-90	6000	T	40 pl	20-30"	No	30-36"	1/4"	68	75-85	VT	tp early Jun
Endive	3060-99	18000	5 g	40'	1"	8"	18-24"	1/4"	50	60-85	H	Apr-July
Gourds, large	1960-99	175	T	20 pl	6/hill	2-3/hill	6'	1/2"	60	70-90	T	tp early Jun
Gourds, small	1900-59	700	1/6 oz	30 hills	6/hill	3/hill	4-6'	1/2"	60	70-90	T	late May
Kale & Collard	3350-89,3589	7500	5 g	40'	1"	12"	2'	1/4"	50	65-85	VH	ASAP-July
Leek	2400-29	10000	T	600 pl	8"	No	2'	1/2"	50	60-80	MH	tp May 1
Lettuce	2700-2999	25000	4g	1g=25'	1/4"	1'	12-18"	1/8"	40	50-75	H	ASAP-Aug
Mache	3100-19	18000	1/4 oz	30'	1/2"	2"	18"	1/4"	48	50-80	VH	ASAP-Aug
Muskmelon	900-49,1000-99	1200	T	5 hills	3/pot	2/hill	5'	1/2"	68	80-95	VT	tp early Jun
Mustard	3139,3200-59	15600	1/8 oz	45'	1"	4-6"	2'	1/4"	50	65-85	MH	Apr-Aug
Okra	3696	420	T	30 pl	12"	No	2-3'	1/4"	65	70-95	VT	tp early Jun
Onion	2440-99	6500	T	400 pl	4"	No	12-18"	1/2"	50	60-85	MH	tp May 1
Pac Choi	3260-75	12500	1/4 oz	30'	1/2"	6-12"	2'	1/4"	50	70-95	MH	May
Parsley	3150-79	18000	1/4 oz	25'	1/4"	1"	12-18"	1/4"	50	50-85	VH	Apr-Aug
Parsnip	2300-10	5000	1/2 oz	25'	1/2"	2-3"	12-18"	1/2"	52	60-77	VH	Apr-July
Pea/snow, snap	700-899	110	8 oz	30'	1 1/2"	No	3' dwarf	3/4"	48	65-85	plants H	ASAP
Pea/snow, snap for fall crop							5' tall				blossoms,pods T	late June
Pepper	3700-3999	4500	T	10-50 pl	12-18"	No	2-3'	1/4"	68	75-85	VT	tp early Jun
Pumpkin	1670-99,1800-99	210	1/2 oz	4-8 hills	6/hill	3/hill	6'	1"	60	70-90	T	late May
Radicchio	2660-99	20000	1/2 oz	30'	1"	8-10"	18"	1/8"	50	60-85	H	late June
Radish	2200-99	2500	1 oz	15'	1/2"	2"	18"	1/2"	50	60-85	H	Apr-Aug
Scorzonera	2322	2000	.6 oz	20'	1"	2"	18"	1/2"	50	65-85	H	Apr-Jun
Spinach	2500-99	2600	1/2 oz	50'	1"	2"	12-18"	1/2"	42	60-80	VH	ASAP
Spinach, fall crop												Aug
Squash, patty pan	1580-99	300	.6 oz	5 hills	6/hill	3/hill	4'	1"	60	70-90	T	late May
Squash, winter	1600-1899	120-480	1/2-1 oz	2-15 hills	6/hill	3/hill	4-6'	1"	60	70-90	T	late May
Squash, summer	1500-99	375	1/2 oz	6 hills	6/hill	3/hill	4'	1"	60	70-90	T	late May
Tomato	4000-4299	9000	T	50-125pl	3'	No	3'	1/4"	60	68-80	T	tp June 1-10
Turnip/Rutabaga	2350-99	9000	1/4 oz	40'	1/2"	3-4"	18"	1/4"	50	60-95	H	Apr-July
Watermelon	950-99,1100-99	700	T	4 hills	3/pot	2/hill	5'	1/2"	68	80-95	VT	tp early Jun
Zucchini	1400-79	180	1 oz	3-4 hills	6/hill	3/hill	4'	1"	60	70-90	T	late May

For information on herbs & flowers please see the variety descriptions.

Abbreviations: Pkt plants=how many row feet our smallest packet will plant T=transplanted only, in our climate.
tp=transplant pl=plants g=grams, 28.4g=1oz. No=not necessary to thin

Hardiness rating VT=very tender=will not survive frost, can be damaged by temperatures under 40°
T=tender=will not survive frost
MH=moderately hardy=survives light frosts
H=hardy=survives frost generally to the low twenties
VH=very hardy=will winter over if protected



Seed Storage

Keep your seed alive by storing it properly! Moisture, humidity and high temperatures are the worst enemies of seed viability. Find a storage area where the sum of relative humidity and temperature is below 100 or place your packets in a glass jar in your freezer or refrigerator. Never keep seed packets in a sunny location, and do not leave them in your greenhouse even for a few hours!.

Most seed stored properly will last for several years. A few seeds, such as onions, parsnips and parsley, are short-lived. If in doubt try germinating a sample of your old seed in moist paper towels.

Approximate planting date: ASAP=as soon as ground can be worked, does not thrive in heat
Approximate planting dates are for *our* Central Maine climate. Please make appropriate adjustments for your climate, using hardiness as a guide.

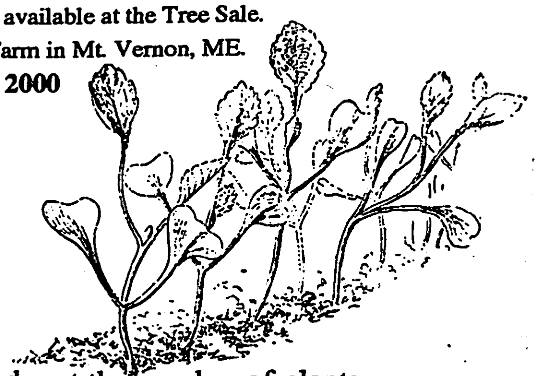
Notes: Seed counts are provided as a *guide*, not a *guarantee*. They vary from cultivar to cultivar. (For more information see the variety descriptions.) You can stretch your seeds further with careful planting. We get a lot more row feet out of a packet of beets serenely planted on a breezy sunny bug-free afternoon than out of the same packet hastily sown in a humid mosquito-infested twilight! Planting rates will vary if intensive methods such as beds are used. Minimum soil temperatures are the lowest we can recommend if you want a good stand. Planting under slightly colder conditions is possible but germination will be slow and spotty. If you have specific cultural questions, consult more detailed resources or get in touch with us.

MOFGA-Certified Organic Seedlings

for pickup at our annual Tree Sale, May 4 - 7, 2000
Fax (207) 872-8317

Additional varieties of vegetable, herb and flower seedlings will be available at the Tree Sale.
All seedlings are grown by John & Michelle Pino at Mooar Hill Farm in Mt. Vernon, ME.

Final order deadline - Friday, March 10, 2000



From mailing label: CC- ____________________
Name: ____________________
Mail Address: ____________________
Town: __________ State ______ Zip ______
Telephone: ____________________

Order the number of 6-paks (4-paks for Impatiens & Petunia) needed, not the number of plants.

Item #	Variety	Quantity	Our use
2414S	Leek, Imperial		
2438S	Scallion, Evergreen Hardy White		
2472S	Onion, Copra		
2478S	Onion, Bennie's Red		
2484S	Onion, Ailsa Craig		
2810S	Lettuce, Brunia Bronze Oakleaf		
2829S	Lettuce, Green Deer Tongue		
2830S	Lettuce, Red Deer Tongue		
2915S	Lettuce, Forellenschluss Romaine		
2948S	Lettuce, Majestic Red Romaine		
2974S	Lettuce, Summertime Iceberg		
3158S	Parsley, Gigante d'Italia		
3166S	Parsley, Forest Green		
3324S	Cabbage, Early Jersey Wakefield		
3338S	Cabbage, Danish Ballhead		
3382S	Kale, Red Russian		
3410S	Broccoli, Packman		
3442S	Broccoli, Green King		
3480S	Brussels Sprouts, Oliver		
3503S	Cabbage, Hermes		
3536S	Cabbage, Ruby Perfection		
3552S	Cauliflower, Snow Crown		
3624S	Celery, Ventura		
3682S	Eggplant, Dusky		
3690S	Eggplant, Rosa Bianca		
3722S	Sweet Pepper, Purple Beauty		
3754S	Hot Pepper, Hungarian Hot Wax		
3760S	Hot Pepper, Pretty In Purple		
3764S	Hot Pepper, Early Jalapeño		
3770S	Hot Pepper, Long Red Cayenne		

Item #	Variety	Quantity	Our use
3810S	Sweet Pepper, New Ace		
3820S	Sweet Pepper, North Star		
3844S	Sweet Pepper, Amish Pimento		
3856S	Hot Pepper, Czech Black		
3880S	Hot Pepper, Super Chili		
3894S	Hot Pepper, Thai Hot		
3910S	Sweet Pepper, Elisa		
4060S	Tomato, Black Krim		
4066S	Tomato, Brandywine		
X067*	Tomato, Yellow Brandywine		
4070S	Tomato, Tiffen Mennonite		
4096S	Tomato, Yellow Plum		
4120S	Tomato, Sochulak		
4194S	Paste Tomato, Bellstar		
4196S	Paste Tomato, Amish Paste		
4205S	Tomato, Early Girl		
4210S	Tomato, Early Cascade		
4260S	Tomato, Big Beef		
4268S	Tomato, Celebrity		
4282S	Cherry Tomato, Sungold		
4296S	Cherry Tomato, Super Sweet 100		
4418S	Basil, Genovese		
4448S	Basil, Lemon		
4462S	Basil, Purple Ruffles		
4518S	Cilantro		
4536S	Dill, Fernleaf		
4556S	Fennel, Zefa Fino		
4616S	Sweet Marjoram		
4646S	Greek Oregano		
4664S	Broadleaf Sage		
	number of 6-paks ordered this page (transfer to totals on p. 52B)		

* - not listed in Fedco catalog

Order the number of 6-paks (4-paks for Impatiens & Petunia) needed, not the number of plants.

Item #	Variety	Quantity	Our use	Item #	Variety	Quantity	Our use
4672S	Summer Savory		▨	5244S	Marigold, Lemon Gem		▨
4686S	German Thyme		▨	5248S	Marigold, Tangerine Gem		▨
4708S	Anise Hyssop		▨	5280S	Nasturtium, Alaska Mix		▨
4728S	Sacred Basil		▨	5288S	Nasturtium, Jewel Mix		▨
4756S	Catnip		▨	5514S	Aster, Matsumoto		▨
4766S	German Chamomile		▨	5558S	Dahlia, Figaro		▨
4776S	Purple Coneflower		▨	5582S	Impatiens, Super Elfin Mix, 4-pak		▨
4836S	Lavender		▨	5606S	Marigold, Queen Sophia		▨
4846S	Lemon Balm		▨	5642S	Petunia, Pink Wave, 4-pak		▨
4854S	Lemon Mint		▨	5644S	Petunia, Purple Wave, 4-pak		▨
5004S	Alyssum, Carpet of Snow		▨	5665S	Snapdragon, Rocket Mix		▨
5008S	Alyssum, Pastel Carpet		▨	5832S	Statice, Purple Monarch		▨
5060S	Bachelor's Button Mix		▨	5884S	Sweet Annie		▨
5072S	Indian Summer Black-Eyed Susan		▨	6080S	Delphinium, Astolat		▨
5084S	Calendula, Pacific Beauty Mix		▨	6084S	Delphinium, Black Knight		▨
5126S	Cleome, Rose Queen		▨	6088S	Delphinium, Summer Skies		▨
5139S	Cosmos, Sea Shells		▨	6094S	Delphinium, King Arthur		▨
5140S	Cosmos, Early Sensation Mix		▨	6110S	Digitalis, Foxy Mix		▨
5194S	Larkspur, Giant Imperial Mix		▨	6186S	Lupine, Russell Hybrids Mix		▨
5234S	Marigold, Sparky Mix		▨	6316S	Creeping Thyme		▨

number of 6-paks ordered this page		▨
number of 6-paks ordered from p. 52A		▨
total number of 6-paks ordered		▨
multiply by price per 6-pak	$2.50	$2.50
SUBTOTAL		▨
All orders add 5.5% Maine sales tax		▨
GRAND TOTAL		▨

MOOARHILL
FARM & GREENHOUSES
John + Michele Pino
Mt Vernon, ME

Send to: Fedco Seeds
PO Box 520
Waterville, ME 04903

Visa or MasterCard Number		Exp. Date
Cardholder name		Amount
Cardholder signature		

Seeds EZ Order Form 2000

Seeds & Books items **1-6899** only. No potatoes, cover crops or supplies.
Fedco Seeds, PO Box 520, Waterville, ME 04903
Fax (207) 872-8317

From mailing label: CC - ____________________

Farm or Group Name ____________________

Name ____________________

Mailing Address ____________________

Town __________ State ______ Zip ______

Deliver to (include road name) ____________________

Town __________ State ______ Zip ______

Telephone ____________________

Number of households ordering ______

	Yes	No
Will you accept substitutions?	☐	☐
May we give your name to other customers?	☐	☐
May we give your name to organizations & businesses?	☐	☐
Are you a commercial grower?	☐	☐

Delivery Options:	✓	check one only
UPS/Priority Mail:	☐	regular (must order by 3/24)
Pickup:	☐	early (must order by 1/14)
Pickup:	☐	regular (must order by 2/11)
Pickup:	☐	late (must order by 3/24)
Truck:	☐	must contact Michael Gulick
Other:	☐	Please specify

See pages 2 & 3 in the catalog for more information

You may pay with VISA or MasterCard or send check or money order payable to Fedco. Please pay by check or money order if the total of your orders is under $25. You may combine your orders to make one payment, but not to figure discounts. You may fax credit card orders to (207) 872-8317. A $2 handling charge applies to all fax orders.

Seeds & Books Total: $ __________

Visa or MasterCard Number		Exp. Date
Cardholder name		Amount
Cardholder signature		

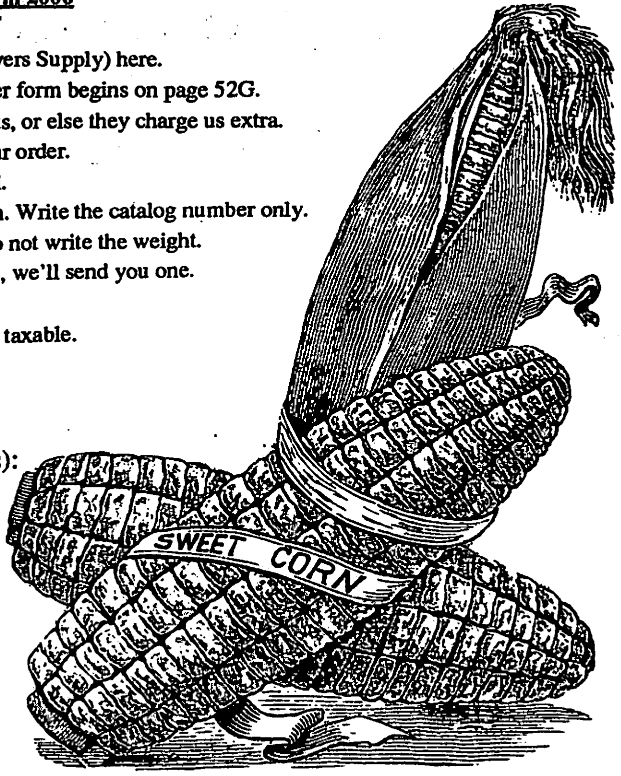
Directions for EZ Form 2000

- **Order only seeds & books items on this form (#'s 1-6899).**
  Do not order Potatoes (Moose Tubers) or Supplies or Cover Crops (Organic Growers Supply) here.
  Potatoes order form begins on page 52E in the center of the catalog. Supplies order form begins on page 52G.
- Please fill in the information above. We must have a road name for UPS shipments, or else they charge us extra.
- Please plan your order before filling out the order form. Please keep a copy of your order.
- Please write your order **in catalog number order**. Write clearly in pen, not pencil.
- Make sure you have the correct catalog number. Do not write the name of the item. Write the catalog number only.
- Make sure you are ordering an available size. Write the code letter for the size. Do not write the weight.
- If you are ordering more than 59 items, please use our grid order sheet. Contact us, we'll send you one.
- Only MAINE residents pay sales tax.
- Only Fedco Seeds items #5000-6899 are taxable. Other Fedco Seeds items are not taxable.
- Seeds volume discounts apply only to items #1-6899.

Please attach separate page for suggestions

Worksheet for figuring totals (use totals after all discounts & charges):

Seeds & Books __________
Moose Tubers __________
Organic Growers Supply __________
Fedco Trees __________
Seedlings __________
Grand Total __________



Do NOT order potatoes, cover crops or supplies on this form! (seeds & books only)

Seeds EZ Order Form 2000, items 1-6899 only

STOP! Please read **Directions** on the other side!

Write clearly and list items in numerical order. Double-check your item numbers. Please use pen.

	Item Number	Size Letter	Quantity		Price per	Total Price
EX	2339	C	2		1.50	3.00
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
					Column 1 subtotal	

	Item Number	Size Letter	Quantity		Price per	Total Price
30						
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						
41						
42						
43						
44						
45						
46						
47						
48						
49						
50						
51						
52						
53						
54						
55						
56						
57						
58						
59						

Column 2 subtotal	
MAINE residents, items 5000-6899 only-5.5% ME sales tax	
No tax for folks outside Maine. SUBTOTAL	
Only mail orders received by Jan. 28 qualify — Deduct 2% earlybird discount	
Volume discounts apply to seeds & books subtotal only: 10% over $100; 15% over $200; 20% over $300; 22% over $600; 24% over $1000 — Deduct volume discount	
Deduct 10% if picked up	
Deduct 1% organic grower discount	
Add $2 if you fax your order	
ADJUSTED TOTAL	
MOFGA permanent home donation	
MOFGA/NOFA membership(s)	
GRAND TOTAL (minimum order $5)	

Send to:

Fedco Seeds,
PO Box 520,
Waterville, ME 04903

☐ Donate all my refund to MOFGA

☐ up to $5.00

☐ up to $2.00

Moose Tubers 2000

PO Box 520 Waterville ME 04903
fax (207) 872-8317

from mailing label CC________________

Farm or Group Name________________

Name________________

Mailing Address________________

Town________________ State____ Zip ________

Deliver to (include Road Name)________________

Town________________ State____ Zip________

phone________________

✓ here ☐ for no substitutions

Volume Discounts
(orders received by 2/25)
5% over $100
10% over $200
15% over $400
20% over $850

Subtotal from reverse	
Volume Discount	–
Adjusted Total	=
Shipping use chart below	+
Add $2 for Fax	+
Grand Total	=

Delivery Options ✓ one only

☐ **UPS/Priority Mail** order by 5/1

☐ **Moose Tubers Pickup** order by 3/24

☐ **Tree Sale Pickup** order by 4/21

☐ **Common Carrier**

☐ **Other** please specify

Make checks payable to **Fedco**

☐ Donate all my refund to MOFGA
☐ up to $5.00
☐ up to $2.00

Visa or MasterCard ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Exp. Date ☐☐ ☐☐

Cardholder name Amount

Cardholder signature

- Order only Moose Tubers items on this form (#'s 7001-7999).
- Do not order Seeds, Books, or Supplies here.
- Ordering instructions on pages 4.
- Please fill out the information and totals blocks above. We **must** have a road name for UPS delivery.
- If you are ordering more than 24 items, please use our order grid. Call us, (207) 873-7333, we'll send you one.
- Use the chart below to calculate your shipping charge.

Weight

If your order weighs ☛ And your zip code begins with	under 2 lbs.	2 to 5 lbs.	up to 10 lbs.	up to 15 lbs.	up to 20 lbs.	up to 25 lbs.	up to 30 lbs.	up to 35 lbs.	up to 40 lbs.	over 40 lbs.	over 250 lbs.	over 500 lbs. call for a quote 207-873-7333
030-059	$3.50	$5.65	$6.40	$7.00	$7.70	$8.30	$9.00	$9.70	$10.30	26¢/lb	15¢/lb	
010-029, 060-069, 119-136	$3.50	$6.00	$6.60	$7.35	$8.30	$9.25	$10.15	$11.10	$12.00	30¢/lb	20¢/lb	
070-089, 100-118, 137-227	$3.50	$6.50	$7.15	$7.60	$8.60	$9.75	$10.95	$12.15	$13.30	34¢/lb	24¢/lb	
228-475	$3.50	$6.50	$7.50	$8.25	$9.70	$11.20	$12.65	$14.15	$15.60	39¢/lb	30¢/lb	
476-574	$3.50	$6.50	$8.00	$9.70	$11.70	$13.75	$15.75	$17.75	$19.75	49¢/lb	35¢/lb	
others except AK and HI	$3.50	$6.50	$9.75	$12.70	$15.70	$18.75	$21.65	$24.70	$27.55	69¢/lb	40¢/lb	
AK and HI	$3.50	$6.50	$15.75	$22.25	$28.70	$34.75	$40.75	$46.90	$53.00	$1.20/lb.	▨	

Moose Tubers 1999 (Items 7001-7999 only)

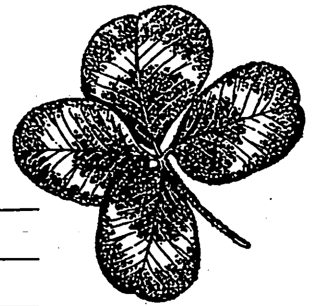
No seeds, books or supplies.

Directions on the other side.
Please double check your item numbers and weights.

	Item #	weight	How many	Variety	Price each	Weight Total	$ Total
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
					Subtotals (carry to other side)	Weight	$ Total

Organic Growers Supply 2000

PO Box 520 Waterville ME 04903
fax (207) 872-8317



from mailing label CC ____________
Farm or Group Name ____________
Name ____________
Mailing Address ____________
Town ____________ State ______ Zip ______
Deliver to (include Road Name) ____________
Town ____________ State ______ Zip ______
phone ____________

Delivery Options ✓ one only

- ☐ **UPS/Priority Mail**
- ☐ **Early Pickup** order by 1/14
- ☐ **Regular Pickup** order by 2/11
- ☐ **Moose Tubers Pickup** order by 3/24
- ☐ **Tree Sale Pickup** order by 4/21
- ☐ **Common Carrier**
- ☐ **Michael Gulick** you must contact Michael
- ☐ **Other** please specify

Volume Discounts
5% over $100
10% over $200
15% over $600
20% over $1200
over $2500 call

Tax from reverse	
Subtotal from reverse	+
Adjusted Total	=
Volume Discount	–
Shipping use chart below	+
Add $2 for Fax	+
Grand Total	=

Make checks payable to **Fedco**

☐ Donate all my refund to MOFGA
☐ up to $5.00
☐ up to $2.00

Visa or MasterCard ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ ☐☐☐☐ Exp. Date ☐☐☐☐
Cardholder name. Amount
Cardholder signature

- Order only OGS items–Cover Crops and Supplies–on this form (#'s 8001-9999).
- Do not order Vegetable or Flower Seeds, Books, or Moose Tubers here.
- Ordering instructions on page 4.
- Please fill out the information and totals blocks above. We **must** have a road name for UPS delivery.
- If you are ordering more than 24 items, please use our order grid. Call us, (207) 873-7333, we'll send you one.
- Use the chart below to calculate your shipping charge.

Weight

If your order weighs ☛ And your zip code begins with	under 2 lbs.	2 to 5 lbs.	up to 10 lbs.	up to 15 lbs.	up to 20 lbs.	up to 25 lbs.	up to 30 lbs.	up to 35 lbs.	up to 40 lbs.	over 40 lbs.	over 250 lbs.	over 500 lbs. call for a quote 207-873-7333
030-059	$3.50	$5.65	$6.40	$7.00	$7.70	$8.30	$9.00	$9.70	$10.30	26¢/lb	15¢/lb	
010-029, 060-069, 119-136	$3.50	$6.00	$6.60	$7.35	$8.30	$9.25	$10.15	$11.10	$12.00	30¢/lb	20¢/lb	
070-089, 100-118, 137-227	$3.50	$6.50	$7.15	$7.60	$8.60	$9.75	$10.95	$12.15	$13.30	34¢/lb	24¢/lb	
228-475	$3.50	$6.50	$7.50	$8.25	$9.70	$11.20	$12.65	$14.15	$15.60	39¢/lb	30¢/lb	
476-574	$3.50	$6.50	$8.00	$9.70	$11.70	$13.75	$15.75	$17.75	$19.75	49¢/lb	35¢/lb	
others except AK and HI	$3.50	$6.50	$9.75	$12.70	$15.70	$18.75	$21.65	$24.70	$27.55	69¢/lb	40¢/lb	
AK and HI	$3.50	$6.50	$15.75	$22.25	$28.70	$34.75	$40.75	$46.90	$53.00	$1.20/lb.	▨	

Organic Growers Supply 2000 (Items 8001-9999 only)

No books or Moose Tubers.

Directions on the other side.
Please double check your item numbers and weights.

	Item #	How many	Description	weight	Price each	Weight Total	$ Total
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							

	Weight	$ Total
Subtotals (carry to other side)		

	Tax
5.5% tax—Maine residents only—on items 9001-9999 only	

Cultural Information and Planting Instructions for Herbs

Name	item#	Botanical name	ABP	height	uses	part	sow	temp	days	notes	cover	sun
Anise	4406	*Pimpinella anisum*	A	1-3'	S B M	S	DS	M	7-28		L	PF
Anise Hyssop	4708	*Agastache foeniculum*	P Z4	2-3'	B M	L F	DW TP	W	7-14	Lt	P	FP
Astragalus	4714	*A. membranaceus*	P Z4	18-30"	M	R	DS TP	M	7-21	Sc Sk	L	F
Basil	4414ff	*Ocimum basilicum*	TA	8-24"	S E M	L	TP DW	W	4-10	W	R	F
Basil, Sacred	4728	*Ocimum sanctum*	TA	18-24"	S M	L	TP DW	W	4-10		R	F
Bergamot	4734	*Monarda fistulosa*	P Z3	3-4'	B M O	L	DS DF	M	7-14	Lt	N	FP
Blessed Thistle	4738	*Cnicus benedictus*	A	1-2'	M	F L	TP DS	M	7-21	St	L	F
Boneset	4742	*Eupatorium perfoliatum*	P Z3-4	3-5'	M	L	DS DF	M	14-21	St Lt	N	PF
Borage	4746	*Borago officinalis*	SSA	2-3'	E M O	F	DS DF	C	7-14		P	FP
Calendula	5084	*Calendula officinalis*	SSA	18-24"	M O	F	DS	M	4-14		R	FP
Catnip	4756	*Nepeta cataria*	P Z3	1-2'	M B	L	DS DF	M	7-10	Lt	N	F
Chamomile	4766	*Matricaria recutita*	SSA	8-18"	B M	F	DS	M	10-14	Lt	N	F
Chervil	4506	*Anthriscum cerefolium*	A	12-18"	S	L	DS	W	7-14	Lt	L	P(F)
Chives	4512	*Allium schoenoprasum*	P Z3	1-2'	S M E	L F	DS	C	7-14		L	FP
Cilantro	4518ff	*Coriandrum sativum*	A	1-2'	S E	L S	DS	C	7-14		R	F(P)
Coneflower	4774ff	*Echinacea spp.*	P Z3	1-3'	M O	R F	TP DW	W	14-21	St Lt	L	F
Dill	4530ff	*Anthenum graveolens*	SSA	2-5'	S M O	S L	DS	W	7-21		R	F
Elecampane	4782	*Inula helenium*	P Z3	5-8'	M O	R	TP	M	7-10	Lt	N	FP
Fennel	4556ff	*Foeniculum vulgare*	TP/A	1-3'	S M	L S	DS	M	7-14		R	F
Feverfew	4786	*Tanacetum parthenium*	P Z4	18-30"	M O	L	TP DS	M	7-14	Lt	N	FP
Garlic Chives	4576	*Allium tuberosum*	P Z4	12-18"	S E	L F	DS	C	7-14		L	FP
Horehound	4796	*Marrubium vulgare*	P Z3-4	20-24"	M	L	TP DS	M	10-21		P	F
Hyssop	4806	*Hyssopus officinalis*	P Z3-4	12-18"	M O	L F	TP DF	C	7-21		R	FP
Joe Pye Weed	6266	*Eupatorium purpureum*	P Z3-4	5-9'	M O	R	DS DF	M	14-21	St Lt	N	P
Lady's Mantle	4826	*Alchemilla mollis*	P Z3	12-18"	M O	L	TP	M	21-30	St Lt	N	FP
Lavender	4836	*Lavandula officinalis*	P Z5	2-3'	M O	F L	TP DF	W	14-28	St Lt	P	F
Lemon Balm	4846	*Melissa officinalis*	P Z4	1-2'	B M S	L	TP DS	M	7-14	Lt	N	FP
Lemon Mint	4854	*Monarda citriodora*	SSA	2-3'	B M	L	DS	M	7-21		R	P(F)
Licorice	4860	*Glycyrrhiza glabra*	P Z8	2-4'	B M	R	TP	M	10-14	Sc Sk	L	FP
Lovage	4592	*Levisticum officinale*	P Z5	3-6'	S M	L	DS DF	M	10-21		R	F(P)
Marjoram	4616	*Origanum majorana*	TP/A	1-2'	S	L	TP	M	7-21	W	N	F
Marshmallow	4866	*Althaea officinalis*	P Z5	4-6'	M O	R L	DS DF	C	14-21	St	L	FP
Mexican Tea	4624	*Chenopodium botrys*	SSA	1-3'	S M	L	DS	C	7-14		N	F
Milk Thistle	4872	*Silybum marianum*	SSA	3-5'	E M	S F L	DS DF	M	7-14	Lt	L	F
Mint	4632	*Mentha spp.*	P Z4	12-18"	S B M	L	TP DS	M	7-14	Lt	N	FP
Motherwort	4884	*Leonuris cardiaca*	P Z3	2-4'	M	L	DS DF	M	7-21	Lt	L	F
Mugwort	4896	*Artemisia vulgaris*	P Z2-3	2-6'	M	L	DS DF	M	10-21	St Lt	R	F
Mullein	4900	*Verbascum thapsus*	B Z3	3-6'	M O	L F	DS TP	M	14-21	St Lt	R	F
Nettle	4908	*Urtica dioica*	P Z2	3-6'	E M	L	DS	M	10-14	Lt	R	FP
Oregano	4646	*Origanum heracleoticum*	P Z5	6-12"	S M	L	TP	M	7-21	Lt	N	F
Parsley	3158ff	*Petroselinum crispum*	B Z3	8-12"	S E	L	DS DF	M	14-60	Sk	R	FP
Pennyroyal	4924	*Mentha pulegium*	P Z5-6	8-12"	M O	L	TP	C	10-14		N	FP
Pleurisy Root	6034	*Asclepias tuberosa*	P Z3	18-30"	M O	R	DW	M	14-28	St	L	F
Rosemary	4656	*Rosmarinus officinalis*	TP Z7	3-5'	S M O	L	TP	M	10-42	St Lt	P	F
Rue	4936	*Ruta graveolens*	P Z3-4	2-3'	M O	L	DS TP	M	10-21		R	FP
Sage	4664	*Salvia officinalis*	P Z4	2-3'	S B M	L	TP DS	W	10-21	Lt	P	F
St Johnswort	4980	*Hypericum perforatum*	SP Z3	1-3'	M	F L	DS DF	M	14-28	St Lt	N	F
Savory, Summer	4672	*Satureja hortensis*	A	12-18"	S M	L	DS	W	7-14	Lt	R	F
Savory, Winter	4675	*Satureja montana*	P Z3	6-12"	S M	L	TP	M	10-21	Lt	N	F
Scullcap	4964	*Scuttelaria lateriflora*	P Z4-5	1-2'	M O	L	TP	M	14-21	St	P	P
Scullcap, Baikal	4965	*Scuttelaria baikalensis*	P Z4	1-2'	M O	L	TP	M	14-21	St	P	F
Shiso	4678ff	*Perilla frutescens*	TA	2-3'	S M O	L	TP	W	7-14	Sk St Lt	L	FP
Spilanthes	4972	*Spilanthes oleracea*	TA	8-12"	E M O	F L	TP	W	4-10		P	F
Thyme	4686	*Thymus vulgaris*	P Z4	6-12"	S M	L	TP	C	14-28	Lt	N	F
Valerian	4984	*Valerian officinalis*	P Z4	3-5'	M O	R	DS	M	10-21	St	L	FP
Vervain	4986	*Verbena hastata*	P Z4	5-6'	M O	R	TP	M	21-28	St Lt	N	F
Yarrow	4990	*Achillea millefolium*	P Z2	1-2'	M O	F L	DS DF	W	10-14	Lt	N	F

ff=and following

ABP: A=annual, B=biennial, P=perennial, TA= tender annual, SSA=self-sowing annual, TP=tender perennial, TP/A=tender perennial grown as annual, SP=short-lived perennial, Z=hardiness zone.

height: typical height at maturity.

uses: S=seasoning, B=beverage, M=medicine, O=ornamental, E=edible.

part: part that is used: S=seed, L=leaf, F=flower, R=root.

sow: DS=direct sow in spring ASAP, DW=direct sow when soil has warmed or after danger of frost has passed, TP=transplant, DF=direct sow in fall. Nearly any herb can be started indoors and transplanted, but this tends to be more work; TP means this method is strongly suggested for best results. Many perennials can be started in early summer indoors or out; they take several years to mature anyway, what's a few months?

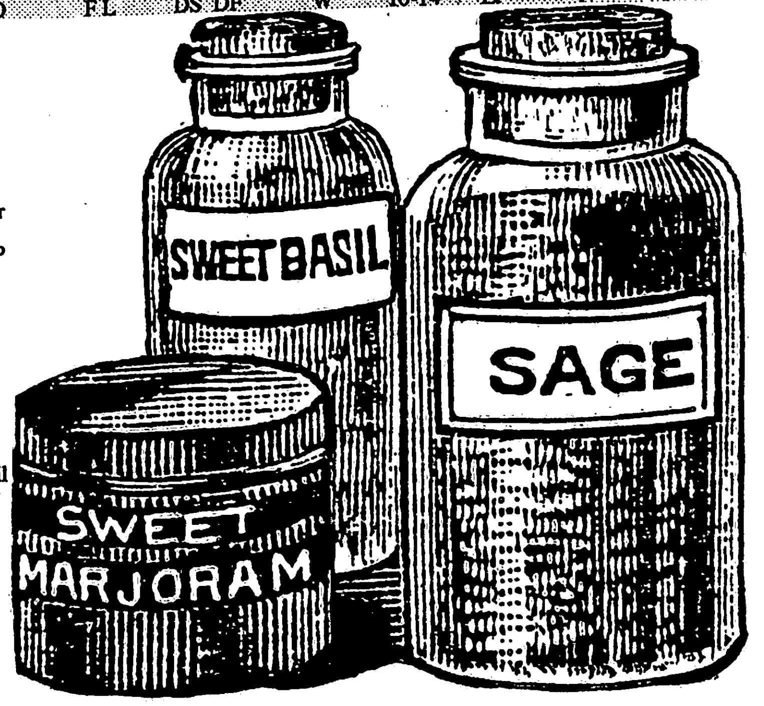
temp: suggested soil temperatures for good germination: C=cool, 60-65°, M=moderate, 65-70°, W=warm, 70-85°.

days: number of days to seedling emergence.

cover: L=cover lightly, P=pat down gently, R=rake or scuffle into soil, N=no, don't cover.

notes: Lt=needs light to germinate, Sc=scarify seed with sandpaper or emery board, Sk=soak seed 12-24hrs, W=water sparingly, St=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer. Nearly any herb requiring stratification can be fall-sown in a cold frame—the winter does the work for you!

sun: F=full sun, P=part sun, FP=prefers full but tolerates part, PF=prefers part but tolerates full, P(F)=prefers part, tolerates full only in cool or moist areas, F(P)=prefers full sun, needs part shade in hot climates.



Flowers at a Glance

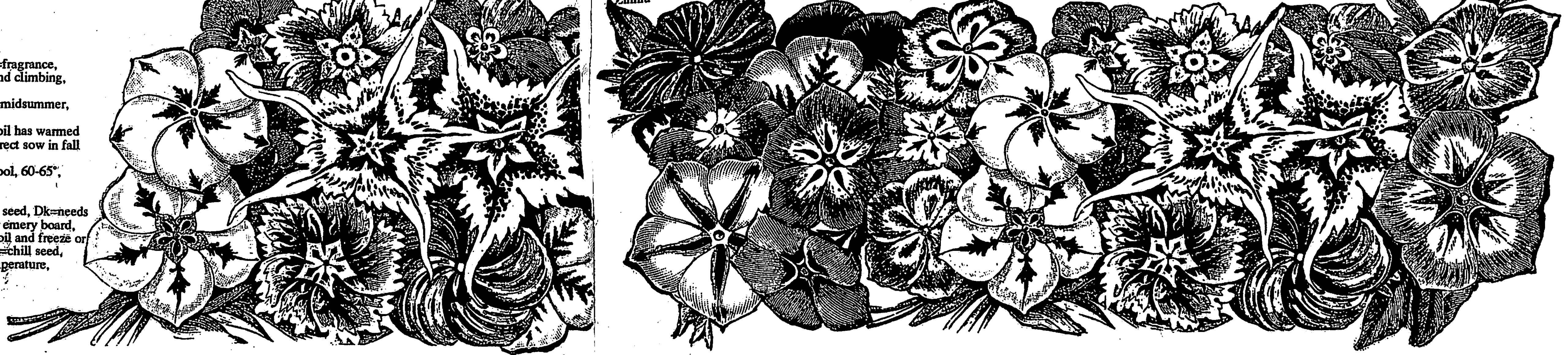
Name	item#	Botanical Name	APB	height	uses	season	sow	start	temp	days	notes
Achillea (Yarrow)	5705, 6008	*Achillea spp.*	P	18-24"	BDC	ES-F	DS DF TP	8-10	C	10–14	Lt
Acroclinum	5710	*Helipterum roseum*	A	2'	DCB	MS-F	D TP	8-9	C	14–21	
Ageratum	5506	*A. houstonianum*	A	8",30"	BCD	ES-F	TP	6-8	W	4–6	S
Alyssum	5004ff	*Lobularia maritima*	A	2-4"	FBW	ES-F*	DS TP	8-9	55-70	8–14	S
Amaranth, Elephant Head	6876	*Amaranthus gangeticus*	A	3-5'	CND	MS-F	TP DS	6-7	W	7–14	Lt
Angel's Breath	5018	*Gypsophila elegans*	A	18-24"	CB	ES-LS	DS TP	8-9	C	7-14	
Aster, China	5024ff, 5514	*Callistephis chinensis*	A	12-24"	BC	ES-F	TP	12-14	W	10–14	
Aster, perennial	6018	*Aster spp.*	P	3-5'	BC	LS-F*	TP	6-8	W	14–21	S, Lt, St
Baby's Breath	6020	*Gypsophila paniculata*	P	24-40"	BDC	MS-LS	TP DS	8-10	M	14–21	S
Bachelor's Button	5050ff	*Centaurea cyanus*	A	24-36"	BC	ES-F*	DW TP	8-9	C	7–14	Cv
Balsam	5066	*Impatiens balsamina*	A	24"	B	MS-F	DW		W	8–10	S
Basketflower	5068	*Centaurea americana*	A	36-48"	BC	ES-LS	TP	8-10	C	10–14	Sk
Bee Balm	6022, 4734	*Monarda didyma*	P	30"	BCD	MS-LS	DS TP	8-10	C	14–21	S, Lt
Begonia	5518	*B. tuberhybrida*	A	8-12"	BW	ES-LS	TP	8-10	W	14–21	
Bellflower	6028	*Campanula carpatica*	P	6-10"	B	ES-F	TP	6-8	C	7–21	
Bells Of Ireland	5714	*Moluccella laevis*	A	30"	DBN	MS-F	TP	6-8	C	12–21	S, Ch5d50°
Black-Eyed Susan	5072	*Rudbeckia hirta*	A	36"	BC	ES-LS	TP	6–8	W	14–21	
Blanketflower	6130	*Gaillardia grandiflora*	P	24-36"	BC	MS-F	TP DW	4-6	W	14–21	
Blazing Stars	5716	*Liatrus spicata*	P	18"	BCD	LS	DS TP	6-8	C	21–28	
Bupleurum	5720	*B. griffithii*	A	2'	DCN	ES-F	TP	8-10	C		
Butterfly Weed	6034	*Asclepias tuberosa*	P	24"	BCN	ES-LS	DS DF		W	21–28	Ch4w34-40°
Calendula	5078ff	*C. officinalis*	A	18-24"	BDCE	ES-F*	DS TP DF	6-8	C	4–10	Cv
Calliopsis	5092	*Coreopsis tinctoria*	SSA	30"	CB	MS-F	DS TP DF	6-8	C	4–10	S, rugged
Canary Creeper	5094	*Tropaeolum pereginum*	A	8'	V	LS-F	DW TP	6-8	C	7–14	Cv
Candytuft	5098	*Iberis odorata*	A	20"	BGF	MS-LS	DWG		M	14	
Carnation (also see Pink)	5102ff	*Dianthus caryophyllus*	A	12-20"	BCF	MS-LS	TP	8	M	7–10	
Catchfly	6038	*Silene diocia*	P	24-30"	BC	ES-LS	DS TP	3-4	C	10–20	
Celosia	5726ff	*Celosia spp.*	A	3'	DCN	LS	TP	8-10	W	10–14	
Cerinthe	5520	*C. major purpurescens*	A	12-18"	B	MS-F*	TP	6-8	W	7–14	
Chick-a-Biddy	5522	*Asarina scandens*	A	3-5'	WV	MS-F	DW		W	14	S
Chinese Lantern	5736	*Physalis alkekengi*	P	24"	BCDN	MS-F	TP DF	8	W	14–21	S, invasive
Clarkia	5120	*C. unguiculata*	A	24"	B	MS-LS	TP DW	6-8	C	7–10	S
Cleome	5126ff	*C. hasslerana*	A	48"	BN	ES-LS	TP DW	4-6	W	10–12	
Cockscomb	5130	*Celosia cristata*	A	10"	BND	MS-LS	TP	4	W	10–14	
Columbine	6042ff	*Aquilegia spp.*	P	18-30"	B	Sp-ES	TP DS	6-8	W	14–28	Lt
Coneflower, Yellow	6054	*Rudbeckia fulgida*	P	24"	BC	MS-LS	TP	6-8	W	7–21	Lt
Coral Bells	6062ff	*Huechera spp.*	P	12-18"	B	ES-MS	TP	6-8	W	7–21	Lt
Coreopsis	6068	*C. grandiflora*	P	18"	BC	ES-F	TP	6-8	W	7–21	Lt
Cosmos	5136ff, 5552	*C. bipinnatus*	SSA	3-5'	BCS	MS-F*	DW TP	2-4	W	7–10	
Cosmos, Yellow	5134	*C. sulphureus*	A	2-3'	BC	MS-F	DW TP	2-4	W	7–10	
Dahlia	5558	*D. x hybrida*	A	12-14"	BC	MS-F	TP	6-8	W	7–14	
Daisy	6272	*Chrysanthemum leuc.*	P	36"	BC	ES-MS	TP	6-8	W	7–14	
Delphinium	6080ff	*Delphinium spp.*	P	3-6'	BCD	MS-LS	TP	10	W	14–21	
Didiscus	5144	*D. caeruleus*	A	24"	CB	MS-LS	DW TP	8	W	14–21	
Dragonhead	5147	*Dracocephalum mold.*	A	24"	B	MS-LS	DW				
Euphorbia	5148	*E. marginata*	A	24-36"	CN	MS-F	DW TP	3	W	9–14	
Flax, Blue	6120	*Linum perenne lewisii*	P	9-12"	B	ES-LS	DS TP DF	6-8	C	21–28	
Flax, Scarlet	5150	*Linum rubrum*	A	12-16"	B	MS-LS	DS				
Flower Of The Hour	5570	*Hibiscus trionum*	A	24"	B	LS-F*	DW TP	2-4	W	14–21	
Forget-Me-Not, Chinese	5110	*Cynoglossum amabile*	A	18"	B	MS-LS	DW TP	6	C		
Four O'Clock	5164	*Mirabilis jalapa*	A	24-36"	BF	ES-LS	TP DW	6-8	M	5–7	
Foxglove	6110	*Digitalis purpurea*	SSB	24-36"	BN	MS-LS	TP	6-8	W	10–18	Lt
Gazania	5572ff	*Gazania spp.*	A	8-10"	B	LS-F	TP	6-8	M	14-21	Cv
Globe Amaranth	5742ff	*Gomphrena globosa*	A	2'	BD	MS-F*	TP	8	W	10–21	Dk
Godetia	5170	*Clarkia amoena*	A	16"	B	ES-MS	DS-DW		C	10–14	Lt
Heliotrope	5576	*Heliotropium arb.*	A	14-18"	FWBC	MS-F	TP	6-8	W	21–28	
Hollyhock	6138ff	*Alcea rosea*	SSB	4-8'	BS	MS-LS	TP	8-9	WM	7–21	
Honesty or Silver Dollar	5762	*Lunaria annua*	B	3'	DN	LS-F	DS TP DF	6	M	14-21	

ff=and following

ABP: A=annual, B=biennial, P=perennial, SS=self-sowing
height: typical height at maturity
uses: B=beds and borders, C=cutting, D=drying, E=edible, F=fragrance, G=ground cover, N=novel accent, S=screen, V=vining and climbing, W=windowbox, container
season: peak bloom time: Sp=spring, ES=early summer, MS=midsummer, LS=late summer F=fall until frost, F*=fall after frost
sow: DS=direct sow in spring ASAP, DW=direct sow when soil has warmed or after danger of frost has passed, TP=transplant, DF=direct sow in fall
start: suggested number of weeks before transplanting
temp: suggested soil temperatures for good germination: C=cool, 60-65°, M=moderate, 65-70°, W=warm, 70-85°
days: number of days to seedling emergence
notes: Lt=needs light to germinate, S=surface sow, Cv= cover seed, Dk=needs darkness to germinate, Sc=scarify seed with sandpaper or emery board, Sk=soak seed 12-24hrs, St=stratify seed; place in moist soil and freeze or refrigerate or alternate between the fridge and freezer, Ch=chill seed, sometimes specifies duration (d=days, w=weeks) and temperature, PP=use peat pots

Flowers at a Glance

Name	item#	Botanical Name	APB	height	uses	season	sow	start	temp	days	notes
Impatiens	5580ff	*Impatiens spp.*	A	8-14"	WB	ES-F	TP	10	W	7–21	Lt
Johnny Jump Up	6170	*Viola tricolor*	SSP	4-6"	EB	Sp-F*	DS DF		M	12-14	
Kale & Cabbage, Flowering	5156ff, 5566ff	*Brassica oleracea*	A	8-18"	BNE	F-F*	DS TP	5-7	C	7–14	start in June for Aug TP
Larkspur	5174ff	*Consolida spp.*	A	24-36"	BCD	ES-F*	DS TP DF	6-8	C	14-21	Cv
Lavatera	5202ff	*L. trimestris*	A	20-36"	BC	MS-F	DS TP	6-8	C	14-21	Cv
Linaria	5212	*L. moroccana*	A	18"	B	ES-MS	DS			10–14	
Lobelia	5214	*Lobelia erinus*	A	4"	BW	ES-F	TP	6-8	C	20	S, Lt
Love-in-a-Mist	5782ff	*Nigella spp.*	A	15-24"	BD	MS-F	DS TP	6	C	14–21	
Love-lies-bleeding	5218	*Amaranthus caudatus*	A	24-48"	BND	MS-F	TP	5-6	W	7–10	PP
Lupine	6186	*Lupinus polyphyllus*	P	36"	B	ES	DS TP DF	6–8	W	14–30	
Mallow	4866, 5224	*Malva spp.*	P,B	4-6'	BNS	MS-F	DS DF				
Maltese Cross	6204	*Lychnic chalcedonica*	P	28-40"	BC	MS	TP	8-10	M	7–14	
Marigold	5228ff, 5601ff	*Tagetes spp.*	A	8-30"	BCW	MS-F	TP DW	3	W	5–8	Dk.
Mignonette	5262	*Reseda odorata*	A	10-15"	F	ES-LS	DW		M	10–14	S, Lt
Moon Lily	5622ff	*Datura inoxia*	A	3'	BFN	MS-LS					
Morning Glory	5270ff, 5624	*Ipomoea spp.*	A	8-12'	VS	ES-F	DW TP	3	W	10–21	Sc, Sk, PP
Nasturtium	5280ff, 5625	*Tropaeolum majus*	A	12-16"	BEWC	ES-F	DW TP	3	M	10–14	Cv
Nicotiana	5628	*Nicotiana sylvestris*	A	4-6'	FN	MS-F	DS TP	6-8	W	7–14	Lt
Painted Tongue	5302	*Salpiglossis sinuata*	A	15"	BC	ES-F	TP	6-8	C	14–21	
Pansy	5306, 5632	*Viola x wittrockiana*	A	6"	BCW	Sp-ES	TP DF?	8-9	C	14–21	Dk
Petunia	5638ff	*P. x hybrida hort*	A	4-6"	WBG	ES-F	TP	8	W	7–14	Lt
Phlox annual	5312	*P. drummondii*	A	6-8"	BC	ES-F*	TP DS	8	C	7–14	
Phlox, Perennial	6234	*P. paniculata*	P	36"	BC	LS-F	TP DF	10-12	C	21–30	
Pincushion Flower	5316	*Scabiosa atropurpurea*	A	36"	BC	MS-F	TP	4-5	M	14–21	
Pink, Maiden	6196	*Dianthus deltoides*	P	6"	BCG	ES-LS	TP	6-8	M	7–14	Lt
Poppy	5318ff	*Papaver spp.*	SSA	24-48"	BCND	MS-LS	DF DS			14–21	seeds edible
Poppy, California	5352	*Eschscholzia californica*	A	8-12"	B	MS-LS	DS			14–21	
Poppy, perennial	6244ff	*Papaver nudicaule*	P	16"	BND	Sp-ES	DS			7–14	Lt
Portulaca	5652ff	*P. grandiflora*	A	4-10"	BWG	MS-F	TP DW	6-8	W	7–14	
Primrose	6262	*Primula vulgaris*	P	6-10"	B	Sp	TP	8-10	C	14–30	
Queen of the Meadow	6266	*Eupatorium purpureum*	P	5-9'	BNC	LS-F	DS DF	14-21			S, St
Sage, Gentian	5362	*Salvia patens*	A	30"	BC	MS-F	TP	12-14	C	21	S
Salvia	5662, 5804	*Salvia spp.*	A	12-18"	BCD	MS-F	TP	8-12	C	21	
Schizanthus	5365	*Schizanthus*	A	18"	BC	MS-F	TP	8	C	21–28	S, Dk
Silkweed	6276	*Asclepias incarnata*	P	4'	B	MS-F	TP DS DF	6-8	M	21–28	S, Ch 3w
Snapdragon	5665	*Antirrhinum majus*	A	30-36"	BC	MS-F*	TP	8-10	W	7–14	
Sneezeweed	6282	*Helenium autumnale*	P	4'	BC	LS-F	TP	6-8	M	14-21	
Starflower	5810	*Scabiosa stellata*	A	18-24"	D	MS-F	TP	8-10	W	10–12	
Statice	5816ff	*Limonium sinuatum*	A	24-30"	DCB	MS-F	TP	8-9	W	7–14	
Statice, German	5846	*Goniolimon tataricum*	P	20"	D	LS-F	TP DS DF	6-8	W	14–21	
Statice, Russian	5852	*Psyllostachys suworowii*	A	18"	BCD	MS-LS	TP	6-8	W	14–21	
Stock	5374	*Matthiola incana*	A	12-14"	BC	ES-F*	DS	6-8	M	7–14	S
Strawflower	5860ff	*Helichrysum spp.*	A	14-40"	DBC	MS-F	TP	8-9	W	7–10	Lt, S
Sunflower	5400ff, 5668ff	*Helianthus spp.*	A	2-12'	CNS	LS-F	DW			7–14	seeds edible
Sunflower, Mexican	5256ff	*Tithonia rotundifolia*	A	4-6'	BNS	MS-F	TP DW	6	W	7–14	
Sweet Annie	5884	*Artemesia annua*	SSA	36-60"	FD	LS-F	DF TP	6-8	W	10–21	Lt, St
Sweet Pea	5440ff	*Lathyrus odoratus*	A	1-6'	CFSV	MS-LS	DS TP	6-8	C	14–21	Sk, Cv
Sweet Pea, Perennial	6296	*Lathyrus latifolius*	P	5-6'	CSV	MS-LS	DS		C	21-24	Sk, Cv
Sweet Sultan	5459	*Amberboa moschata*	A	24-48"	FBC	MS-LS	DS TP	6-8	M	14–21	
Sweet William	6306	*Dianthus barbatus*	P	18"	FBC	ES	DS TP	6-8	M	7–14	
Thyme, Creeping	6316	*Thymus serpyllum*	P	2-3"	FGB	MS-LS	DS TP DF	8-9	C	14–28	Lt
Venidium	5460ff	*V. fastuosum*	A	18-24"	B	MS-F	TP	8-10	W	14–21	Lt
Verbena	5462, 5672ff	*Verbena spp.*	A	8", 48"	WBC	MS-F	TP	6-8	M	14–21	Lt, Ch 5-7d
Veronica	6326	*V. spicata*	P	24-30"	BC	MS-LS	TP	8-10	M	7–21	
Vinca	5682	*Catharanthus roseus*	A	8"	WB	ES-F	TP	6-8	W	7–21	
Winged Everlasting	5890	*Ammobium alatum*	A	24"	D	MS-F	TP	8-10	M	10–14	
Xeranthemum	5770	*X. annuum*	A	3'	CD	MS-F	TP	8	W	14–21	
Zinnia	5468ff, 5690	*Zinnia spp.*	A	20-42"	BC	MS-F	TP DW	3-4	W	7–14	



ANNUAL FLOWERS

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

Seeds per packet for flowers are approximate. They are intended as guides, not guarantees, because we pack by weight, not by count. Available in three sizes except where noted. **Packet weights are listed with each flower; prices are in a box at the top of each page.**

Flowers are arranged here by common name. **See chart on pp. 54-55 for common uses and cultural information. A botanical index appears on p. 70.**

ALYSSUM *Lobularia maritima*

Free-flowering ground cover, blossoming from late spring till fall. Has a fragrance like fresh-mown hay. Cascading habit makes alyssum excellent for windowboxes or terrace edges. Start seed in cool place 2 mos. before setting out. Needs light to germinate. Transplant seedlings 4-8" apart. Cool growing temperatures preserve color intensity. Easy to grow, likes sun, tolerates some shade. To extend their season, shear the plants halfway back four weeks after bloom. Resistant to frost, will tolerate temperatures below 25° F. 90,000 seeds/oz. all types.

5004 Carpet of Snow Great-smelling dwarf white. 4". Introduced prior to 1926. ②③ A=.5g, ~1,600 seeds, B=7g, C=28g.

5008 Pastel Carpet Pleasing shades of violet, rose, pink and white. 2½". ④ A=.5g, ~1,600 seeds, B=2g, C=6g.

5018 Rosea Angel's Breath *Gypsophila elegans* Pretty shell-pink single flowers blossom all summer on wispy stalks. Start in cool place indoors 2 months before setting outdoors or direct sow. Likes full sun and well-drained not overly fertile soil. 30". Good cutflowers. ② A=.5g, ~1,050 seeds, B=7g, C=28g. 59,000 seeds/oz.

CHINA ASTER *Callistephus chinensis*

Callistephus is from the ancient Greek *kalli* meaning beautiful and *stephos* meaning crown. According to Jo Ann Gardner in *The Heirloom Garden*, the China Aster began its journey to the west around 1730 when a Jesuit missionary noticed it growing in a field near Beijing. By the late 1700s China Asters were among the most cultivated of all flowers. Good as bedding plants or cutflowers. Range of color includes blues, purples, pinks and white. Sow indoors in a warm spot in late winter, transplant after danger of frost. Cut stems when 2-4 flowers have opened. All types about 13,000 seeds/oz. See also **#5514**.

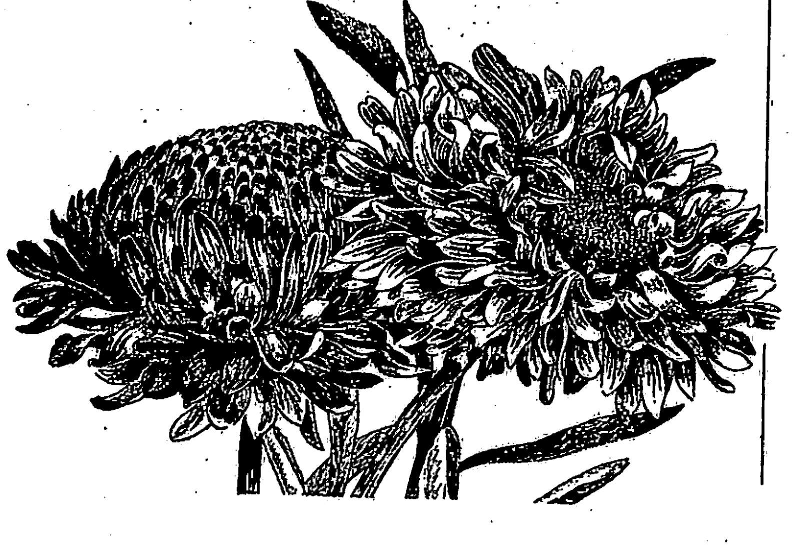
5024 Early Dawn Mix By far our earliest aster, Early Dawn provides bright splashes of color beginning in July. Will continue prolific bloom production if kept deadheaded. Nothing enriches bouquets like the first asters. 12-18". ③ A=.5g, ~210 seeds, B=2g, C=6g.

5028 Crego Mix Although a week later than Early Dawn, the ostrich feather blooms are bolder and seem to hold better in wet and/or cold conditions. 2' plants with 4" diameter flowers. Park's 1934 Flower Book called them "a humdinger" and Maule's 1935 Seed Book featured them in color on the back cover. ③ A=.5g, ~250 seeds, B=4g, C=16g.

5032 Princess Mix 2-3" flowers on long wiry stems. The pompon blooms are richly colored with deeply crested centers. Elegant cutflowers which tend to be late bloomers. Still underrated by Fedco customers; these stole the show in our extensive 1994 trial. No other variety can match them in September. ②③ A=.25g, ~100 seeds, B=2g, C=8g.

5040 Sea Star Mix The most stunning aster Nikos has ever grown; she found seed in Germany after years of searching for a source. 2' plant bears fancy "tiger paw" flowers 3½-4" across, with a curled whorl of needle-like petals in a choice mix of lavender, blue, pinks, violet and soft white. Very productive and uniform. Excellent in bouquets and striking in the garden. ② A=.2g, ~90 seeds, B=.6g, C=3g. 13,000 seeds/oz.

5044 Thunderball Among our 30 trial asters in 1994, Fleuroselect medal winner Thunderball stood out far above the rest in midseason. Its bright deep red somewhat spiky 3" blooms attracted visitors to our flower beds and were great for cutting because of their long stems. The blooms, starting in midseason, maintained peak quality for a long period, almost till frost. ② A=.25g, ~110 seeds, B=1g, C=3g.



BACHELOR'S BUTTON *Centaurea cyanus*

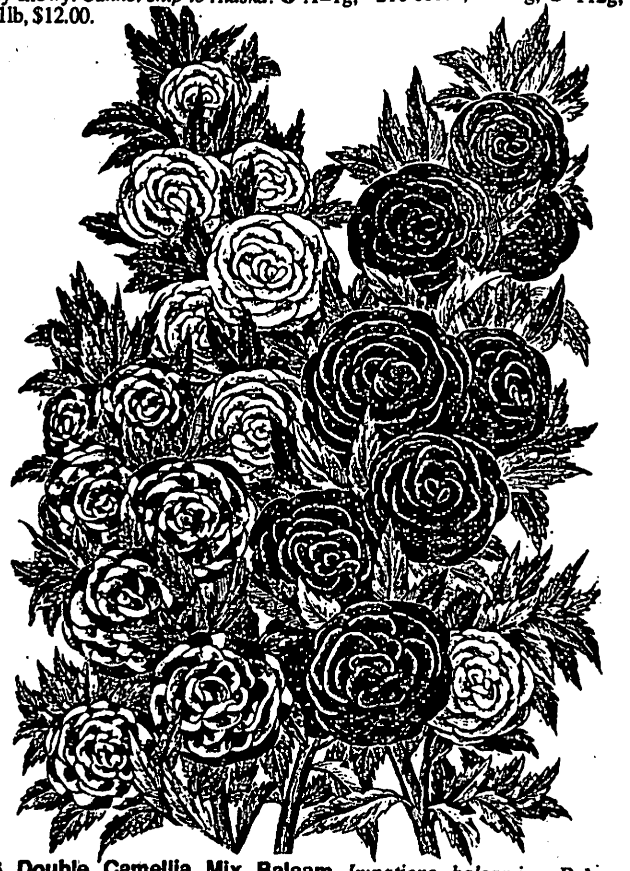
Easy to grow, great for cutflowers and beds. Common name may refer to the tight unopened buds' resemblance to buttons or to their popularity as boutonnieres. Also known as Cornflower and, formerly, Hurt-Sickle because its wiry stems dulled many a sickle during mowing time. Start in warm place 2 months before setting out or direct seed in May in a sunny location. Make a succession planting in mid-late June if you desire late summer blooms. Will self-sow. Lasts longer than most flowers after frost. Cut when flowers are just beginning to open—they'll open more in the vase. Thomas Jefferson cultivated Bachelor's Button around 1786. 3'. About 6,000 seeds/oz. 1# size not listed on the grid form, see p. 3 for bulk ordering instructions.

5050 Black Ball *Sorry, short crop. Not available this year. We hope to have back in 2001.*

5052 Blue Boy Showy blue. ③ A=1g, ~210 seeds, B=28g, C=112g, D=1lb, $12.00.

5056 Red Boy Deep red. ② A=1g, ~210 seeds, B=7g, C=28g, D=1lb, $12.00.

5060 Mix Blend of blue, pink, red, white flowers with blue predominating. Very showy. *Cannot ship to Alaska*. ② A=1g, ~210 seeds, B=28g, C=112g, D=1lb, $12.00.



5066 Double Camellia Mix Balsam *Impatiens balsamina* Balsam reigned supreme during the Victorian era but has been neglected for almost a century. Makes a novel show of abundant pink, rose and white rosettes along the axils up its stems. Direct seed after danger of frost. Don't cover the seed. Thin to 6-12" for a more spectacular display. Pinch off the side branches and the first flowers to encourage a profusion of blooms near the top of the plant and give the effect of a ready-made bouquet. One of my favorites; very underrated. 2'. ② A=1g, ~120 seeds, B=7g, C=28g. 3,300 seeds/oz.

5068 Basketflower *Centaurea americana* Outstanding fluffy pinkish lavender "ostrich plume" flowers bloom all summer, attracting butterflies. Sometimes called "thornless thistle," these 4-5" blossoms open in the morning and close at midday to a woven basket form. As a cutflower they have a 3-day vase life, providing special interest as they continue to open and close. Soak seeds overnight and direct seed. 3-4'. Seed organically grown in Maine by Susan Belding at Old Stage Farm. ①③ A=.5 gram ~35 seeds, B=1.5g, C=6g. 2,000 seeds/oz.

5072 Indian Summer Black-Eyed Susan *Rudbeckia hirta* With so many wild Black-Eyed Susans growing in our fields, why buy seed for them? You won't find any wild ones that look like 1995 AAS Indian Summer, whose enormous five-petaled 6-9" golden yellow blooms are more reminiscent of sunflowers than Susies. Indian Summer grows up to 3' but branches so that staking is not necessary. Its long straight stems make excellent cutflowers which last more than a week in the vase. Start indoors for early blooms. Will survive light fall frosts. Bred by Fleck of Germany. ② A=.1g, ~140 seeds, B=.3g, C=2.1g. 41,000 seeds/oz.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

CALENDULA *C. officinalis*

Old kitchen garden flower, 18-20" tall, also known as Pot Marigold. Beautiful orange and yellow double flowers, good for cutflower arrangements, are also edible. They thrive in cool weather, being one of the last flowers to succumb to fall frosts. Can be direct seeded in May or started indoors in cool place for early blooms. Don't crowd, give them full sun. Deadhead to keep blooms coming and make the patch more attractive or try succession plantings.

5078 Flashback A mix of peachy and apricot doubled petals, all with red backing to create a distinctive contrast. The colors evolve to a bicolor yellow/peach or yellow as the plants mature, adding further interest. NEW! ① A=1g, ~150 seeds, B=4g, C=12g, D=1oz, $8.00, not listed on the grid form, see p. 3 for bulk ordering instructions. 4,300 seeds/oz.

5080 Kablouna Mix Distinct refined form with a neat crested center not showing the eye. ②③ A=1g, ~140 seeds, B=4g, C=12g, D=1oz, $8.00, not listed on the grid form, see p. 3 for bulk ordering instructions. 4,000 seeds/oz.

5084 Pacific Beauty Mix The classic lovely yellow and orange mix. Herbalists highly regard its healing gifts. *A Woman's Book of Herbs*, #6698, has details. Organic seed. ②③ A=2g, ~300 seeds, B=14g, C=56g, D=1lb, $20.00, not listed on the grid form, see p. 3 for bulk ordering instructions. 4,500 seeds/oz.

5088 Touch of Red Mix Deep mahogany red in centers, on petal backs and edges creates pleasing contrast. Excellent for cutflowers. Tends to fade quickly after heavy rains, but was gorgeous during our dry October, 1994. ② A=1g, ~200 seeds, B=3g, C=9g. 5,670 seeds/oz.

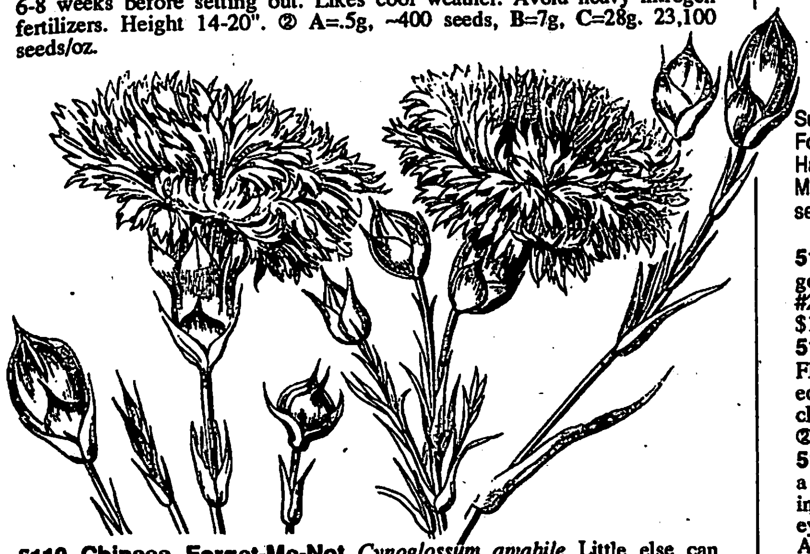
5092 Calliopsis Mix *Coreopsis tinctoria* A low-maintenance rugged flower to bring a splash of fall color into your garden. Petals brushed in yellow, mahogany and red surround mahogany centers. Large cosmos-like flowers atop 2½' erect stems flourish in full sun and make excellent cut flowers. Good for less cultivated areas: open spaces, roadsides and borders because it competes well with grasses and reseeds easily. ③ A=.3g, ~220 seeds, B=.9g, C=4.5g. 62,500 seeds/oz.

5094 Canary Creeper *Tropaeolum peregrinum* A climbing relative of the nasturtium. With a little coaxing, profuse vines can climb 8', providing golden-yellow flowers late in the season. Grows in shade but prefers full sun. ③ A=1g, ~15 seeds, B=7g, C=28g. 420 seeds/oz.

5098 White Pinnacle Candytuft *Iberis odorata* Makes a lovely border plant with its show of fragrant white blossoms with small green buttons in the center. Also excellent for cutflowers. *Candia*, an old name for Crete, and *Iberis* show its Mediterranean origins. Direct seed in late spring. 20". ② A=.5g, ~190 seeds, B=5g, C=15g. 10,880 seeds/oz.

5102 Dwarf Fragrance Mix Carnation *Dianthus caryophyllus* Also known as Clove Pink. Notable for their outstanding fragrance, they come in a wide range of colors including crimson, rose, pink and white. Their stiff stems help make them a good cutflower. Remove lateral buds to produce larger flower on top. Start indoors 8 weeks before setting out after danger of frost is past. 12-14". ② A=.3g, ~150 seeds, B=1.5g, C=6g. 14,500 seeds/oz.

5108 Double Mix China Pink *Dianthus chinensis* The name Dianthus comes from the Greek meaning "divine flowers." The name well fits the clustered, double dainty fringed blooms in white, salmon-pink and crimson. They are commonly known as pinks, not for their color, but for their serrated petal tips which look like they've been pinked. Start indoors in cool place 6-8 weeks before setting out. Likes cool weather. Avoid heavy nitrogen fertilizers. Height 14-20". ② A=.5g, ~400 seeds, B=7g, C=28g. 23,100 seeds/oz.



5110 Chinese Forget-Me-Not *Cynoglossum amabile* Little else can match the brightness of their tiny 5-petaled azure blue blossoms. Plants are small, about 18" tall, but very floriferous, with three blooms per cluster and a half dozen clusters per plant. To create a spectacular color contrast try them alongside Schizanthus near candytuft and Godetia. Start indoors six weeks before the last frost or direct seed outdoors in spring. Space plants 9" apart. 6,800 seeds/oz. ②③ A=1g, ~185 seeds, B=7g, C=28g.

5120 Clarkia Mix *C. unguiculata* Also known as Rocky Mountain Garland. A native of the American west where it was discovered during the Lewis & Clark expedition and given its name. A standout in our flower beds, always one of the first to bloom, often lasting a long time. Bears double flowers of pink, red and white along 2' erect stems. Closely related to Godetia, but much less likely to lodge. Makes a wonderful border. Can be direct seeded, but we recommend starting indoors and transplanting after danger of frost for earlier and more enduring blooms. Won't flower when night temperatures drop below 50°. Clarkia doesn't like heat so keep it mulched and moist during high summer. ③ A=1g, ~3,500 seeds, B=7g, C=28g. 98,000 seeds/oz.

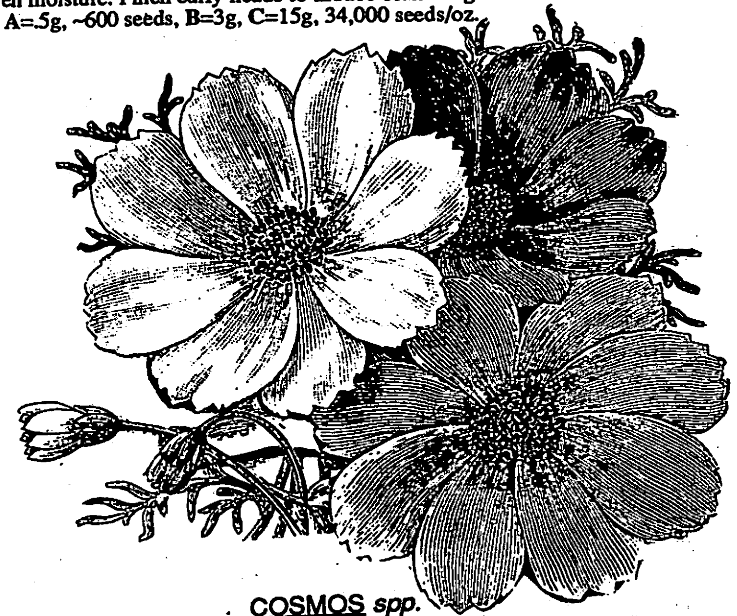
CLEOME *C. hasslerana*

The old-fashioned spider flower sets large open flower clusters with very long stamens atop 4' stalks. For better germination, prechill seeds in refrigerator. Do not cover seed. Blooms throughout the summer and likes the hot and dry conditions of midsummer. CR says, "Send in your letters lobbying for the addition of a white Cleome!" 22,500 seeds/oz.

5126 Rose Queen ② A= .5g, ~400 seeds, B=7g, C=28g.

5128 Violet Queen Gorgeous in August. ② A= .5g, ~400 seeds, B=2g, C=8g.

5130 Coral Gardens Cockscomb *Celosia cristata* An extra-dwarf brain-type growing fairly large flowers on compact 10" plants. Blooms display a rich mix of red, crimson, rose, orange and gold with an almost neon glow. Be prepared when people approach your 6-pack annuals and ask, "Do you have any brains?" Sow indoors in peat pots 4 weeks before last frost. Too-early seeding and cold temperatures can cause premature flowering. Seedlings sensitive to both drying out and damping off; apply even moisture. Pinch early heads to induce branching. See also **#5726-5732**. ② A=.5g, ~600 seeds, B=3g, C=15g, 34,000 seeds/oz.



COSMOS *spp.*

Sun-loving, free-flowering all summer, can serve as an accent, screen or cutflowers. For best results, thin its fast-growing large plants. Deadhead for persistent blooms. Harvest cutflowers when petals on first flower are just opening. Vase life is 4-6 days. May be started indoors or direct seeded after last frost. Light aids germination. 3,900 seeds/oz. See also **#5552**.

D size is not listed on the grid form, see p. 3 for bulk ordering instructions.

5134 Bright Lights Mix *C. sulphureus* A bright mixture of yellow and gold shades reaching 3'. Not frost hardy. Makes a good background to #2186 Bull's Blood Beet. ② A= 1g, ~140 seeds, B=7g, C=28g, D=4oz, $10.00.

5136 Picotee *C. bipinnatus* A unique bicolor cosmos for the aficionado. Flowers vary in hue from white to pink to rose, with each serrated petal edged in contrasting magenta. Bright golden centers. Plants grow 4' climaxed by blooms 2½-3" across. A nice addition to your cosmos bouquet. ② A=.5g, ~60 seeds, B=3g, C=15g, D=1oz, $10.00. 3,500 seeds/oz.

5139 Sea Shells *C. b.* If each petal on an Early Sensation were to curl into a tube, they'd have the striking delicate look of a Sea Shells. 3' plants come in the usual mix of red, pink and white shades, each with a yellow button eye. A lovely cosmos. ② A=.5g, ~85 seeds, B=3g, C=12g, D=1oz, $8.00. About 5,000 seeds/oz.

5140 Early Sensation Mix *C. b.* So named because its early maturity created a sensation when it first came out. 1936 AAS. Largest flowered cosmos variety needs little tending. One of the last to give in to frost, will flower 10 weeks after direct seeding. Pinks, reds, purples and occasional whites. 4-5'. Our most popular flower. ②③ A=1.4g, ~195 seeds, B=14g, C=56g, D=1lb, $18.00.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

5144 Lacy Blue Didiscus *Trachymene coerulea* Also known as Blue Lace Flower. Looks like a light blue version of Queen Anne's Lace. Airy flower heads on 2' stems float like a blue mist above attractive finely-cut foliage and are excellent for cutting. Start indoors or direct seed after danger of frost. Transplant 8" apart. Likes full sun. ② A=.25g, ~90 seeds, B=1g, C=3g. 1 oz=10,300 seeds.

5147 Moldavian Dragonhead *Dracocephalum moldavica* A fine bee and butterfly plant covered with small lavender blue flowers that bear a fanciful resemblance to tiny dragon heads, complete with "fangs." The 2' multi-branching plants with rugged bushy habit make good garden filler. Lightly scented lemon leaves intensify when dry, hinting at possibilities for potpourri. Used dry as a tea, they have little flavor but do provide a slight tang. Recommended by a customer who sent us seed. ② A=.5g, B=1.5g, C=4.5g. 1 oz=11,300 seeds.

5148 Kilimanjaro Euphorbia *Euphorbia marginata* Also known as Snow-on-the-Mountain. Get ready for a euphorbic color sensation when you interplant these with bright flowers such as Cynoglossum or Venidium. A foliage plant grown for its ovoid green leaves which quickly become outlined in striking white. The contrasting white developed more quickly in this Euphorbia than in others we tried, transforming the garden with a blazing display of color. Well adapted to poor or average soils; grew about 2' in my dry raised beds but capable of reaching a foot taller. Long-lasting in the vase where it provides valuable filler with a good color base. Attracted much attention at our Common Ground Fair booth. *Caution: Among sensitive individuals the milky sap may cause itching or rash.* ③ A=.3g ~18 seeds, B=.9g, C=4.5g. 1,700 seeds/oz.

5150 Scarlet Flax *Linum grandiflorum* 'Rubrum' Five-petalled blooms up to 1½" across on bushy 1' plants. Bright red flowers with a silky sheen. For best effect grow a generous mass. Direct seed as soon as ground can be worked. Do not transplant. ② A=1g, ~300 seeds, B=7g, C=28g. 8,400 seeds/oz.

5156 Flowering Cabbage Mix *Brassica oleracea* Good ornamental for our climate because the colors deepen at the onset of cold weather. Start indoors 5-7 weeks before setting out in midsummer for fall maturity. While weather is still hot, sidedress with manure so that the plants will make rapid growth before nights begin cooling. As autumn approaches, withhold nitrogen to speed coloring. Graham Rice (see **#6558**) says, "Opinions are divided on the ornamental cabbages and kales…I think they're positively outrageous—pink and white cabbages! But every now and then I grow a few because they give me a good laugh at a time of year when it's especially welcome." 10". ⑤ A=.25g, ~80 seeds, B=1g, C=4g. 9,000 seeds/oz.

5160 Osaka Mix Flowering Kale *B. o.* F-1 hybrid. A mix of red, pink and white compact heads with wavy-edged leaves, providing color contrasts for accent or pattern plantings. Used as edible garnish and in salads; also called salad savoy. Prefers cool weather. Culture same as for flowering cabbage. 8". ⑤ A=.5g, ~250 seeds, B=2g, C=6g. 14,500 seeds/oz. See also **#5566-5568.**

5164 Tall Mix Four O'Clock *Mirabilis jalapa* Also known as Marvel of Peru. The fragrant trumpet-shaped flowers open in late afternoon, reaching peak loveliness at dusk when they appear to glow. The 2-3' plants make good background or annual hedge. Start indoors, transplant out when warm weather has settled in. Likes full sun. Will self-sow in warmer areas. ② A=3g, ~50 seeds, B=9g, C=27g. 520 seeds/oz.

5170 Dwarf Double Azalea Mix Godetia *Clarkia amoena* Also known as Farewell to Spring. So lovely, deserves to be better known. Frilly delicate double and semi-double blooms on 16" stems in pastel shades of pink, red, rose and lilac stand out in bouquets. Direct seed in early May. Light aids germination. Wonderful in borders, benefits from taller flowers in the background to form contrast, give support. Makes a good cutflower for local sales but has poor shipability. Harvest when the first flowers on the stem are open. Lasts 5-10 days in the vase. ② A=.7g, ~2,200 seeds, B=7g, C=28g. 89,500 seeds/oz.

LARKSPUR *Consolida orientalis*

Giant Imperial, 3'. Long flower spikes are used as cutflowers or in dried arrangements. Delphinium-like flowers on upright long-stemmed plants. Cut when one third of the flowers on the stem are open. Likes cool, moist conditions. Very slow to give in to fall frosts. May be direct seeded in early spring or started indoors and set out in 8 weeks. Does not germinate well in warm temperatures. Refrigerating for a week will improve germination. All types about 9,400 seeds/oz.

5174 Blue Spire Dark blue. ② A=1g, ~330 seeds, B=4g, C=16g.

5178 Carmine ② A=1g, ~330 seeds, B=4g, C=16g.

5182 Lilac ② A=1g, ~330 seeds, B=4g, C=16g.

5186 Pink Perfection ② A=1g, ~330 seeds, B=4g, C=16g.

5190 White King 1937 AAS. ② A=1g, ~330 seeds, B=4g, C=16g.

5194 Mixed Pinks, purples, blues and white make a beautiful background, good for cutting. ② A=1g, ~280 seeds, B=4g, C=16g, D=4oz, 24.00, not listed on the grid form, see p. 3 for bulk ordering instructions.

5198 Blue Cloud *C. regalis* Blue Cloud doesn't shoot up a single spike like most larkspurs. Instead it sends flocks of bushy 5-petaled rich blue ½" florets on wispy foliage which, *en masse*, give the effect of clouds. Its tiny seed pods are equally decorative. Will self-sow vigorously. ② A=.1g, ~80 seeds, B=.5g, C=5g. 22,800 seeds/oz.

LAVATERA *L. trimèstris*

People seeing my garden for the first time often ask for the identity of this flower so they can grow it the following year. Every stalk is covered with single funnel-shaped blossoms. Start indoors 8 wks before setting out, or direct seed in sunny spot. Cut when flowers are uncurling or have just begun to bloom. Vase life is one week. Will survive light fall frosts. Also known as Herb Treemallow; botanical name honors the 16th century Swiss naturalist brothers Lavater, and the three-month bloom time in warmer climes. 4,200 seeds/oz.

5202 Mix Replaces Pink for this year. The mix will consist of more than 80% pink shades (some light and some dark) and the remainder white. An explosion of exotic blooms on 2' tall bushy plants great for borders. Lasts in bouquets after most others have shrivelled. ③ A=1g, ~150 seeds, B=4g, C=16g.

5206 Mont Blanc Slightly dwarf (20") hybrid with white blossoms. Fleuroselect medal winner. Too short for commercial cutting, but nice in borders. ③ A=.5g, ~75 seeds, B=2g, C=6g.

5210 Tanagra Extra-large deep rose flowers with lighter veining borne on robust 3' plants. ② A=1g, ~150 seeds, B=4g, C=12g.

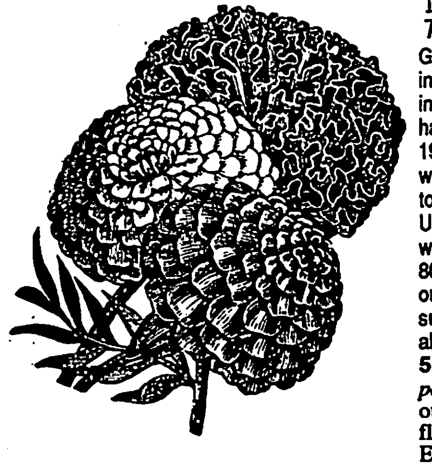
5212 Fairy Bouquet Mixed Linaria *L. maroccana* Also known as Toadflax. Dainty blooms, resembling small snapdragons, in a wide range of colors (rose, pink, orange, lilac, purple, white and soft yellow), each with a pollen-yellow throat, really look like the work of plant fairies. Flowers early and lasts until early August, with fully branched stems and feathery foliage. Good along borders in massed plantings; about 18" tall. Sow outdoors as soon as the ground can be worked. Intolerant of extreme heat. ③ A=.1g, ~1,300 seeds, B=.5g, C=3g. 13,000 seeds/g.

5214 Crystal Palace Blue Lobelia *L. erinus* Named for the Flemish botanist Mathias de l'Obel who was a physician to King James I of England. With bronze-green foliage and flowers a stunning deep blue, this is the perfect window box plant. 4" tall, great for edgings, walks and borders. Mix with dwarf yellow marigolds for a spectacular contrast. Needs light to germinate. Tolerates some shade. Cannot stand frost. ④ A=.2g, ~5,000 seeds, B=1g, C=4g. 26,400 seeds/g.

5218 Loves-Lies-Bleeding *Amaranthus caudatus* Also known as Tassel Flower. Well-loved by cottage gardeners for more than 300 years. This vigorous 2-4' branching annual sports long drooping red tassels which hold until frost. Makes a good border; stake and tie for neater appearance. Goes well with bachelor buttons, nicotiana or sunflowers. Avoid heavy fertilization. ② A=1g, ~1,500 seeds, B=7g, C=28g. 43,000 seeds/oz.

5224 High Mallow *Malva sylvestris* var. *mauritania* First caught my eye as a volunteer in one of my compost piles, a refugee from a distant flower garden. Bears striking large single fuchsia saucer-shaped flowers with dark veins. An outstanding blue ribbon specimen at the 1994 Common Ground Fair captivated all who saw it. This is a large plant—about 3' across and 4' high—so give it plenty of room in a focal point in your garden. Biennial usually grown as an annual; will often flower the first year. ③ A=.15g, ~15 seeds, B=.6g, C=1.8g. 2,800 seeds/oz.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.



MARIGOLD *Tagetes* spp.

Good for bedding, in planters, or low borders. Grown in Brazil 400 years ago, said to have been sacred to the Aztecs. In 1939 Burpee's Red and Gold hybrid was the first hybrid flower from seed to be offered commercially in the United States. Sow after soil has warmed, or inside in a warm (75-80°) spot, 3 weeks before setting out after danger of frost. Likes full sun. About 9,000 seeds/oz. See also **#5601-5618.**

5228 Aurora Yellow Fire *T. patula* This French beauty lights our fires with bright yellow flowers inset with red flames. Extra early with numerous large flowers, consistently double from the first bloom to the last. The compact neat rounded 8-10" plants bear flat-petaled 2½" blooms. Not day-length sensitive. ②④ A=.25g, ~75 seeds, B=1g, C=4g.

5230 Brocade Mix French Dwarf Double *T. p.* Abundant color on neat, compact 10" plants. Ruffled flowers in rust, yellow, orange, red & bicolors. ② A=.5g, ~130 seeds, B=7g, C=28g.

5234 Sparky Mix French Dwarf Double *T. p.* Combines yellow, gold, orange and red blooms on free flowering compact 10-12" plants. Flowers are 2-2½" wide with smoother petals than Brocade. ②③ A=1g, ~300 seeds, B=7g, C=28g.

5236 Troubadour Yellow French Dwarf Double *T. p.* These brilliant glowing yellow flowers began blooming in July and never stopped till frost. Bears fully double flowers right from the start, unlike most other early-blooming dwarf doubles. Free-flowering 2" blooms on 10" plants will keep coming if you keep deadheading. ④ A=.3g, ~90 seeds, B=.9g, C=4.5g.

5240 Striped Marvel *T. p. nana* If you've become blasé about marigolds because they all seem to look alike, you probably haven't encountered the striped ones yet. Whether called Pinwheel, Harlequin, or Striped Marvel, the blooms jump out at you with their intense color variations, juxtaposing yellows and maroons in arresting patterns. *Caution: Very luxuriant foliage. We had few blooms relative to plant mass in 1998 and will try a spot with poorer soil next time.* Grows up to 2'. ② A=1g, ~340 seeds B=4g, C=12g.

5244 Lemon Gem *T. tenuifolia pumila* Compact 10-12" plant bears tiny bright lemon-yellow flowers early, through summer, into fall. Blooms are edible with lemony scent. Chinese Forget-Me-Not makes a great background plant to the Gems. ④ A=.5g, ~600 seeds, B=1.5g, C=6g. 35,000 seeds/oz.

5248 Tangerine Gem *T. t. p.* As above, except the tiny fragrant flowers are deep orange. They make colorful tasty additions to salads. If you cut them, they'll keep coming. Watering them in dry spells also helps. ④ A=.5g, ~600 seeds, B=1.5g, C=6g.

5252 Tall African Crackerjack Mix *T. erecta* A tall (30") carnation-flowered type. Early mix of orange, gold, yellow. Large, fully doubled flowers rarely need staking. ②③ A=1g, ~320 seeds, B=14g, C=56g.

Hints for Cutting Flowers

- Deadhead spent blooms frequently to keep seedpods from forming.
- Early morning, when stems are tight with water taken up overnight, is the best time to cut flowers.
- Newly opened blossoms are the best to pick. Unpollinated fresh flowers have a longer vase life.
- Avoid cutting flowers in the heat of day.
- Cut stems several inches longer than you'll think you'll need.
- Make a clean cut with sharp scissors or knife.
- Carry a bucket of lukewarm water to the garden with you. Place stems directly into the bucket as you cut them.
- Allow your bucket to rest in a cool, dark place for several hours before arranging your bouquet.
- Strip any foliage that will be below water line in the vase.
- Recut stems under lukewarm water, then transfer immediately to a lukewarm water-filled vase.
- Change water frequently to prolong life. Recut flower stems a small amount every few days.
- Keep finished bouquets out of drafts and direct sunlight.

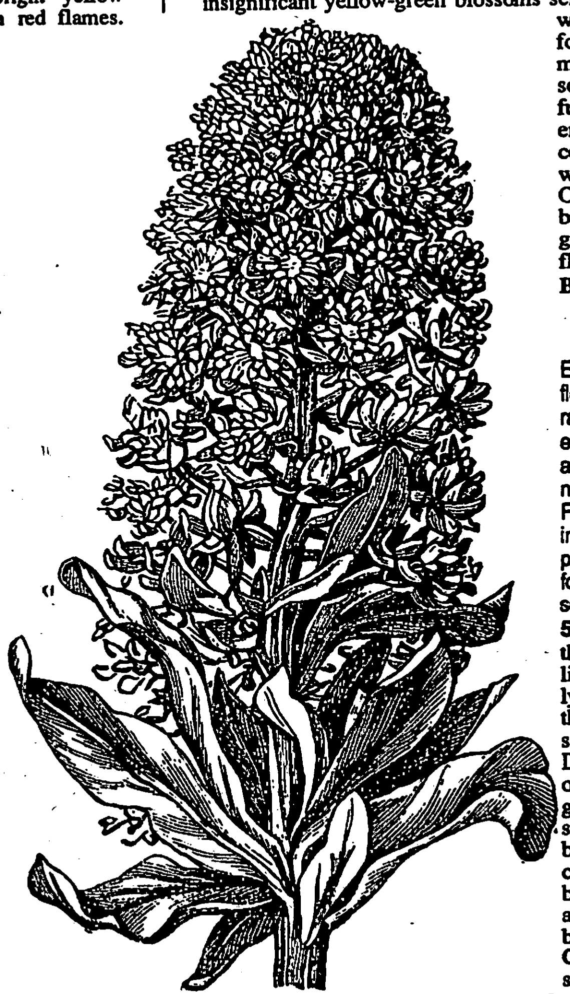
MEXICAN SUNFLOWER *Tithonia rotundifolia*

Attract butterflies with these tall floriferous beauties. The dressy blooms often exceed 4" across and continue over a long season. Heat-loving plant closely related to the Zinnia. Sow outdoors after danger of frost in warm soil, or start indoors 6 weeks before last frost date. Tithonia sulks in the cold so don't bring it out too soon.

5256 Goldfinger 4' tall with bright orange 3-4" blooms. Upright and uniform habit, but more dwarf than Torch. Lloyd and Rice call it "horrible" and "short-jointed," but they must have shortchanged the soil they put it in. Maybe they just saw too many James Bond movies! It *is* shorter than Torch, but has charm. NEW! ③ A=.2g, ~20 seeds, B=.6g, C=1.8g. 2,800 seeds/oz.

5258 Torch Stately 6' plants bear scarlet-orange 4-5" blooms which hummingbirds find extremely attractive. My fondness for this showy flower is shared by our customers who purchased over 600 packets in 1999. 1951 AAS. ② A=.2g, ~20 seeds, B=.6g, C=7.2g. 2,800 seeds/oz.

5262 Mignonette *Reseda odorata* Louise Beebe Wilder said that few flowers have attained greater fame or been so loved as Mignonette. Its insignificant yellow-green blossoms send the haunting scent of raspberries wafting through the air. Less than a foot high, it can be grown in pots and moved for best effect; however its scent will fade if it is removed from full-day sun. Direct seed; do not cover. Make succession plantings for continuous blooms. Prefers fertile well-drained soil and cool weather. Once considered fashionable on the balconies of Paris, Mignonette is still grown in Holland for European cut-flower markets. ② A=1g, ~900 seeds, B=4g, C=16g. 25,500 seeds/oz.



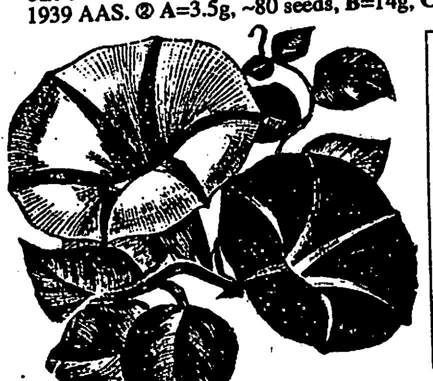
MORNING GLORY *Ipomoea spp.*

Easily grown climber with trumpet-shaped flowers provides color and shade. Decorates fence or post. Plant with NE to SE exposure for best results. Nick seeds with a file and soak overnight to speed germination. Germinates in 2 weeks at 75-80° F. Sow outdoors after danger of frost or indoors in jiffy pots as they resent transplanting. Overly rich soil will yield excess foliage and sparse blooms. A=3.5g, ~80 seeds. 675 seeds/oz. See also 5624.

5270 Flying Saucers *I. nil* This is the floral version of ET, the blooms like pods from another world. Actually Sputnik had been in space only three years, and the lunar landing was still nine years hence when seedsman Darold Decker created these gaudy 4" open trumpets. A bicolor morning glory, featuring clear white cups streaked with sky blue. The swirly blue patterns create the ethereal saucer effect that inspired its name. Can be brought inside in the bud stage for a week-long show as the amazing blossoms unfurl their patterns. Climber grows 8-10'. ② A=1.5g, ~45 seeds, B=6g, C=18g.

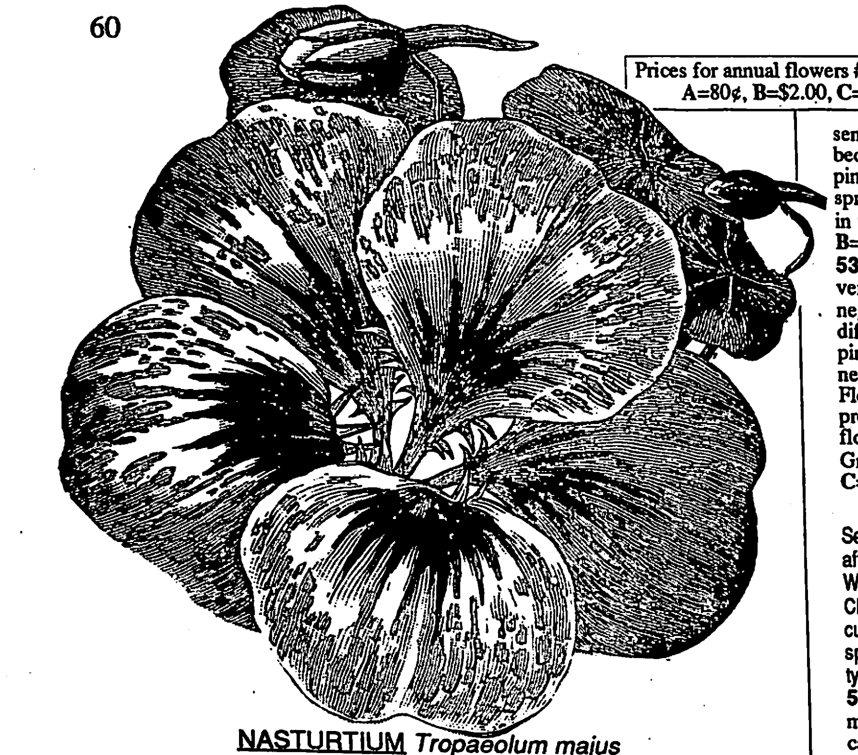
5272 Clarke's Heavenly Blue *I. tricolor* Old favorite predates 1911. Intense blue lightens toward center; a sun-loving vine. 12'. ② A=3.5g, ~80 seeds, B=14g, C=56g, D=1lb, $16.00, not listed on the grid form, see p. 3 for bulk ordering instructions.

5276 Scarlett O'Hara *I. nil* Very large wine-red flowers on 10' vines. 1939 AAS. ② A=3.5g, ~80 seeds, B=14g, C=56g.



Weight equivalents

1 gram =	.035 oz	
2 grams =	.070 oz	
3 grams =	.106 oz	
4 grams =	.141 oz	
7 grams =	.247 oz	
10 grams =	.355 oz	
14 grams =	.494 oz	
15 grams =	.528 oz	
20 grams =	.710 oz	
28 grams =	.987 oz	
100 grams =	3.53 oz	or .220 lb
112 grams =	3.95 oz	or .247 lb
225 grams =	7.93 oz	or .496 lb
340 grams =	11.99 oz	or .750 lb



NASTURTIUM *Tropaeolum majus*

Edible flowers lend a peppery taste to salads, with each color adding contrast and subtle variations in flavor. Blooms keep coming if cut. Round leaves also edible. Formerly used as a remedy against scurvy. Needs warmth to germinate, but cool temperatures outdoors for continuous blooming. Intolerant of frost. Avoid excess nitrogen, but don't believe the myth that nasties thrive best in poor soil. Like full sun. Start indoors or direct seed after last frost. About 200 seeds/oz. all types. See also #5625.

1# prices not listed on the grid form, see p. 3 for bulk ordering instructions.

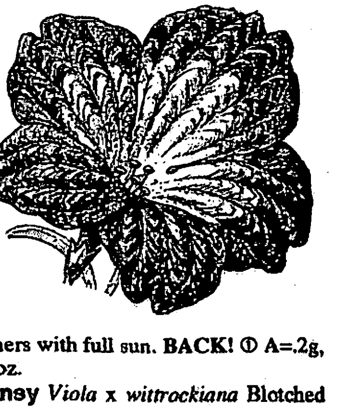
5280 Alaska Mix Striking variegated green and white foliage will make a formidable bush if you feed it heavily. But go easy on the nitrogen if you want to eat lots of its tangy yellow and orange blossoms. A great plant for hanging baskets. 16". ② A=2g, ~16 seeds, B=8g, C=24g, D=1lb, $40.00.

5284 Empress of India Hailed as a "great novelty" when introduced in 1884, and still popular today. Stems and leaves have a red toning that gives the plant a lovely olive color. Attractive scarlet flowers are spicy hot. Darker coloring makes a delightful contrast in your nasturtium patch. Do not feed heavily. 16" plants. ② A=3g, ~22 seeds, B=9g, C=27g, D=1lb, $38.00.

5288 Jewel Mix Bushy variety holds bloom above foliage. Early free-flowering blend of colors. Blooms 6 weeks after sowing and continues until frost. 16". ②③ A=4g, ~25 seeds, B=16g, C=64g, 1lb, D=1 lb, $18.00.

5292 Whirlybird 7-Color Blend *T. minus* Has large spurless upward-facing flowers borne above the foliage. Compact non-trailing plant habit. Recommended for commercial growers. 12" plants. ④ A=2g, ~12 seeds, B=6g, C=24g, D=1lb, $40.00.

5296 Tall Climbing Mix Tall trailing mix to 2' in red, orange, gold and exquisite bicolor shades. Each different colored blossom has its own distinctive taste. Plants will spread but having no tendrils cannot, strictly speaking, climb. *The most prolific blossom set of any of the nasturtiums we have tried.* ②③ A=4g, ~25 seeds, B=28g, C=84g, D=1lb, $18.00.



5302 Super Friendship Mix Painted Tongue *Salpiglossis sinuata* A very refined version of this delicate old-fashioned 15" cutflower with a wide range of colors and long-lasting blooms. Trumpet-shaped blooms with exquisite veins and markings, in dark blue, purple, deep red, strawberry, light and deep pinks, yellow, sky blue and cream, with gold and white veining. Not much foliage, so flowers really stand out. Deadhead to keep production up. For earliest blooms start indoors 8 weeks before setting out after danger of frost. Thrives in cool summers with full sun. **BACK!** ① A=.2g, ~860 seeds, B 1g, C=4g. 125,000 seeds/oz.

5306 Swiss Giant Regular Mix Pansy *Viola x wittrockiana* Blotched flowers in a wide range of colors, with best color in cool of spring, 6" plants good for bedding or borders. Not recommended for commercial growers. Start 2 months prior to planting in a cool (65°) place. Likes partial sun. See **#5632** for another pansy. ②③ A=.1g, ~70 seeds, B=1g, C=4g. 20,000 seeds/oz.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

5312 Drummondii Mix Phlox *P. drummondii* Their name honors Thomas Drummond, a British naturalist who "discovered" them in Texas during the 1820s or 1830s and sent seed back home. Among the most colorful annuals for summer and fall beds, borders or window boxes. A large-flowered mix of crimson, scarlet, pink, white and salmon with white eyes. Start early indoors or direct sow in spring. Likes moist, well-drained soil in full sun. One of the longest lasting in the vase. About the last to succumb to frost. 6-8". ③ A=.4g, ~200 seeds, B=2g, C=8g. 14,000 seeds/oz.

5316 Imperial Mix Pincushion Flower *Scabiosa atropurpurea* Once very fashionable; as late as 1955 Burpee offered 12 kinds and colors. Now a neglected but excellent old-fashioned cutflower. A new common name and different botanical name would help. Hardly anyone even knows what a pincushion is any more, and as for the images conjured by *Scabiosa*, well, never mind. Still, it is one of my favorites; its beauty belies its name. Flowers, perfect 1" mounds of tiny blossoms with a sweet smell, bloom profusely on long stems and last a week in the vase. Harvest when the flowers are almost fully open. Blend of crimson, rose, lavender and white. Grows to 3', or pinch to induce bushiness. ② A=.5g, ~40 seeds, B=3g, C=15g. 2,400 seeds/oz.

POPPY *Papaver spp.*

Sensuous luxurious flowers, about 2½-3' tall. Need light to germinate. Sow outside after frost or sow in fall for earlier blooms next summer. Thin to 9-12". Likes full sun. Will self sow. Seeds also useful in baking. Poppies make wondrous cutflowers: Choose buds that have straightened up but not quite opened. Immediately sear the cut stem—we use a lighter—and put in water. Poppies open after several hours—a sparse bouquet in the evening can become a riot of colors by the next morn. All types 200,000 seeds/oz.

5318 Carnation Pink Ruffled, heavily doubled bright pink blossoms make this one a real show-stopper. 4-5" flowers create splashes of color that can be seen from a distance. With each plant putting out a succession of blossoms beginning in July, its breathtaking beauty extends through mid August, though the first blooms are the most spectacular. Foliage is a distinctive glaucous light green. Broadcast seed in spring. Thin for robust plants. A prolific self-sower. Seed grown in Maine without herbicides, pesticides or commercial fertilizers. **NEW!** ① A=.2g, ~1,400 seeds.B=1g, C=4g.

5320 Carnation Rose As above except the blossoms are more rosy and the foliage more feathery. **BACK!** ① A=.2g, ~1,400 seeds, B=1g, C=7g.

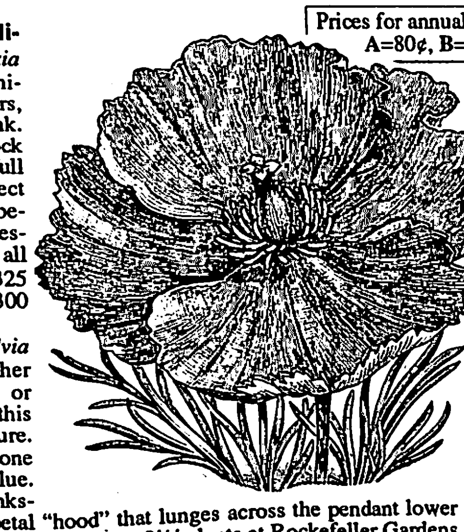
5324 Elka An unusual double-purpose poppy sporting enormous seed heads up to 1½" wide and 2" high in good years, somewhat smaller in drought. About 75% of the seed heads are unvented so that the seed is not broadcast. From Chrenovec in central Slovakia, once used as a walnut substitute in their cuisine. Fifty or more years ago, families grew both the black Breadseed poppy and white-seeded Elka, and collected 50 kilograms of each for a year's cooking. When walnuts became widely available in stores, Elka almost completely disappeared. Named in honor of the old woman on a mountainside in Slovakia who is the last one left who continues to grow the variety in her area. Lacks the distinctive flavor of the Breadseed variety but is sweeter, with a more nutlike taste, none of the bitterness, and over 50% more oil content, making perhaps the best quality edible oil in central Europe. Plants grow 4' with white-lavender blossoms, like calcium-rich soil, don't transplant well. For best results thin to at least 5-6" apart. Some folks tie a group of plants together for support against wind breakage. Isolate from other poppies by at least 250' if you wish to save seed. Seed grown in Maine without herbicides, pesticides or chemical fertilizers. ① A=.1g, ~700 seeds, B=.3g, C=1.2g.

5328 Ziar Breadseed Unusual twin to Elka, bred to eliminate the vents in its large seed head so the blue seeds stay in the heads to be collected. Ornamental single pink to red petals with centers ranging from pale red through dark colors. Although the first batch of seeds had some difficulty adapting to the cold climates of Canada and Maine, Ziar has been selected over the past 17 years for better cold survival. Slovakian variety once a mainstay in their cuisine. Seed grown in Maine without herbicides, pesticides or chemical fertilizers. ① A=.1g, ~700 seed, B=.3g, C=1.2g.

5330 Danish Flag According to legend, the Danish flag came from the sky to King Valdemar II in 1219. The origins of the *Danebrog* or Danish Flag poppy, are more obscure but it is an heirloom predating 1901. Flag is named for the white spots at the base of the petals which form a cross in the center of the brilliant scarlet flowers somewhat mimicking the Danish flag. The lush single blooms, more than 4" across with fringed petals, sit atop 27" stems with blue-green foliage. After their spectacular show, the flowers make attractive large seedheads ideal for drying. ② A=.2g, ~440 seeds, B=1g, C=7g.

5334 Large Lavender Passed along to Jeanne Griffin by a German friend, these tall poppies bloom in July with 2½-3" flowers that have exquisitely shaded and fringed petals. Long blooming period. Large 1" seed pods can be used in dried arrangements. Seed grown in Maine without herbicides, pesticides or chemical fertilizers. ① A=.2g, ~1,400 seeds, B=1g, C=7g.

5346 Shirley Double Choice Mix Also known as Corn Poppy, was called Ghost or Fairy Poppy early in the century. Elegant blooms all summer in shades of pink, rose, salmon, scarlet and white. The name Shirley refers to the town in Surry, England, where the Rev. Henry Wilkes originally raised the variety. ② A=.7g, ~4,900 seeds, B=7g, C=28g.



5352 Mission Bells California Poppy *Eschscholzia californica* Colorful, semi-double 2-3" orange flowers, occasionally yellow or pink. Excellent for borders, rock gardens, bedding. Likes full sun. Do not transplant. Direct seed in May after soil has begun warming. Make succession plantings for blooms all summer. 2'. ②③ A=.5g, ~325 seeds, B=2g, C=6g. 18,300 seeds/oz.

5362 Gentian Sage *Salvia patens* It's hard to say whether magnificent blue blossoms or dynamic flower shape is this salvia's most exciting feature. Clear bright flowers are one shade lighter than cobalt blue. Each flower on the monks-hood-like spike has a top petal "hood" that lunges across the pendant lower petals. Nikos and Susan marveled at these 2½' plants at Rockefeller Gardens on Mount Desert Island. Flower spikes 12-15" long, good for cutting. Tender perennial, can be grown as an annual in the North. ② A=.1g ~13 seeds, B=.3g, C=1.2g. 3,700 seeds/oz.

5363 Signum Blue Salvia *S. farinacea* Regret crop failure this year. *Not available. We hope to have back next year.*

5365 Angel Wings Schizanthus *S. pinnatus* Bring a hint of the exotic to your garden by growing this colorful array of delicate orchid-like flowers with pansy faces. Softly complementary shades of pink, violet and rose with contrasting blotched and stippled throats create the effect of an 18" fern covered by rare little butterflies. Bring cut sprays of bloom indoors for a touch of Victorian charm. Also known as Butterfly Flower or Poor Man's Orchid. Do not cover the fine seed, but do cover the flats or pots with a sheet of black plastic because darkness aids germination. Takes 3-4 weeks to germinate. ② A=.2g, ~390 seeds, B=1g, C=5g. 55,000 seeds per oz.

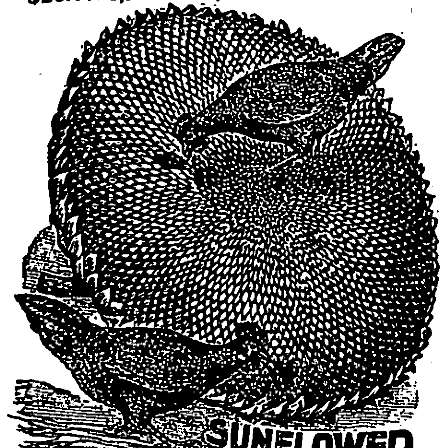
5374 Dwarf Ten Weeks Mix Stock *Matthiola incana* Formula blended. Dwarf plant reaches 12-14". Each produces abundant flowers which really come into their own in the cool of September and tolerate light fall frosts. Light and dark blue, white, pink and red blossoms for bedding and cutflowers. For earlier blooms sow indoors 6 to 8 weeks before setting out after danger of frost. Harvest flowers when fully open for cuts. Recut stems frequently. ② A=.4g, ~250 seeds, B=2g, C=12g. 18,000 seeds/oz.

SUNFLOWER *Helianthus annuus*

Native to the Americas and revered by Peruvian Incas, sunflowers are enjoying a tremendous popularity revival. Thanks to the folks at Loon Song Farm, who have trialed over 40 different varieties for us since 1994, we've diversified our selection so that you can enjoy a full range of colors, shapes, heights and bloom times. Prized for their seeds by humans and birds, sunflowers also add a lighthearted touch to gardens. Prechilling seed aids germination. Easy to grow. Direct sow after last frost, 3 to a pocket. Thin to best plant, 1' or more apart. Rich friable soil yields tallest plants, drought stunts growth. Will readily self-sow; for some fun leave a few volunteers in strategic locations. For cutflowers harvest the stems when the flowers are almost completely open. See also #5668-5669.

1# prices not listed on the grid form, see p. 3 for bulk ordering instructions.

5400 Autumn Beauty Mix Tall 6-8' multibranching sunflower produces a lovely mixture of earthen shades. Petal colors range from bright yellow to bronze and purples; most have a characteristic red ring enclosing a black center. Blossoms 4-6" across are perfect as the center of giant flower arrangements. Has pollen. ② A=1g, ~45 seeds, B=4g, C=28g, D=1lb, $28.00. 1,300 seeds/oz.



5408 Mammoth Grey Stripe A traditional variety of giant (6-12') single-stem sunflower with large seed heads. Beloved by birds and kids. ③⑤ A=28g, ~250 seeds, B=84g, C=336g, D=1lb, $6.00.

5410 Lemon Queen Luxuriant 8" blooms with lemon yellow petals surrounding striking solid brown centers. Although it can grow up to 10' tall in rich soil, its powerful stems do not lodge. Likes high fertility; makes shorter stems and narrower petals in average soil. Not early; bloomed for Donna Dyrek in late August. ③ A=1g ~45 seeds, B=5g, C=20g, D=1lb, $25.00. 1,270 seeds/oz.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

5412 Primrose This polyheaded wind-resistant sunflower is perfect for cutflowers. Blooms, which hold for a long time, are 4-5" with lemon-yellow petals around attractive brown centers. About 5-7'. Hulls ran purple color during our germ tests; can be used for dying. ④ A=1g, ~20 seeds, B=5g, C=20g, D=1lb, $40.00. 560 seeds/oz.

5416 Schnittgold Contrast is the watchword for this handsome single-headed 5' sunflower. Its double ring surrounded by deep yellow petals makes a striking display. The center pollen ring is black and flat, surrounded by an auxiliary ring of brown. "Schnitt" means "cutting" in German; the variety makes a superb cutflower. Karen Pratt of Wilmington, VT, points out that Schnittgolds, when mature, get a hollow in the center—perfect for making the sunflower bird wreaths sold in pricey garden catalogs. 8-10" blooms. ③ A=1g, ~25 seeds, B=3g, C=12g. 700 seeds/oz.

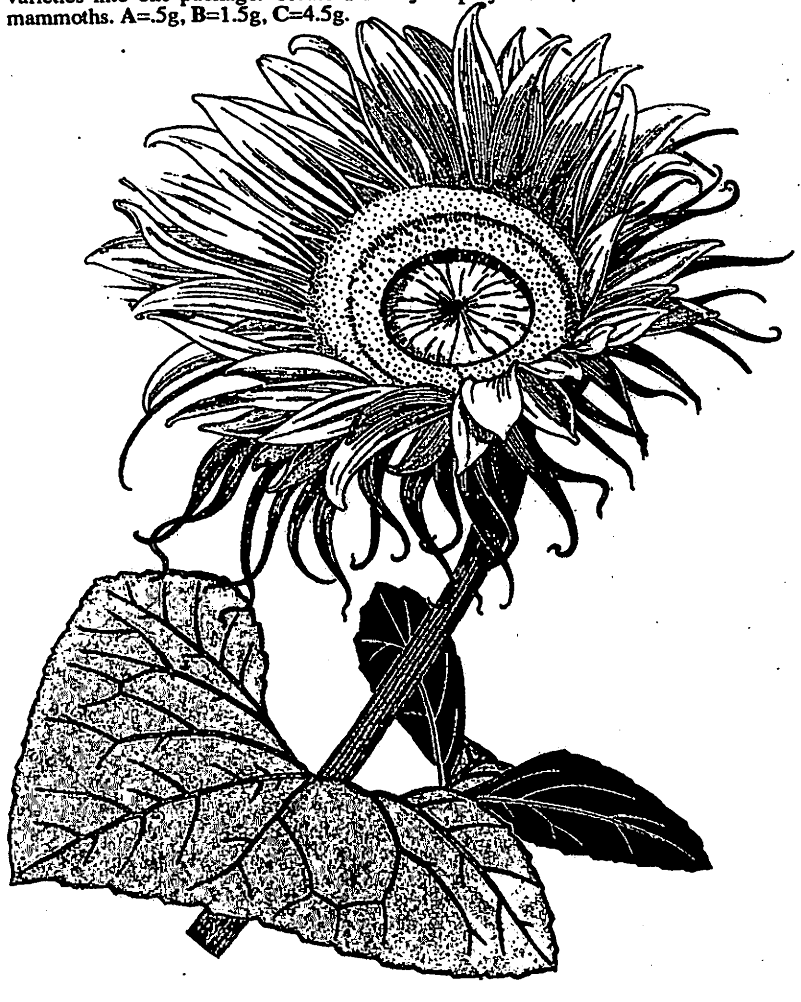
5420 Selma Suns Mix Trialer Donna Dyrek rates these her favorite sunflowers for their fragrance, beautiful diversity, and plethora of polyheading 6" blooms. Selma's heads have small dark centers, pointed petals, and display various hues and shades including yellows, golds, maroons and reds. Donna reports that Selma "flowers forever if the squirrels don't rip off the heads." Stalks grow 6-7'. ④ A=1g, ~55 seeds, B=3g, C=12g, D=1lb, $35.00. About 1,560 seeds/oz.

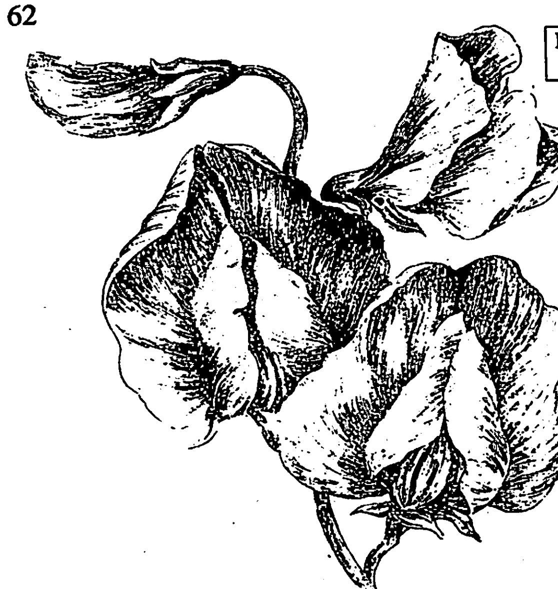
5428 Sungold Dwarf A Danish variety which was the best of the Teddy Bear-types in our trial and much nicer than the original Teddy Bear. Polyheaded blooms growing on very short stems (the main stalk is only 2') are fully double giving the fuzzy effect. Habit almost like a well-behaved dahlia. Drew much attention and many comments at our sunflower display at Common Ground Fair in 1994. Blooms hold well compared to other dwarf types. Has pollen. ③ A=1g, ~50 seeds, B=3g, C=12g, D=1lb, $55.00. 1400 seeds/oz.

5432 Sunspot With Sunspot you can bring the cheer of sunflowers indoors during those long cold winter months. Grow this dwarf 2½' plant in a container in your house! Although its stem is relatively diminutive, its 8" flowers are anything but puny, and look like traditional sunnies—yellow with a dark center. For good growth choose a warm sunny location, indoors or out. You may need to provide some support as Sunspot approaches maturity. ③ A=.25g, ~5 seeds, B=1g, C=3g, D=1lb, $35.00. 560 seeds/oz.

5436 Vanilla Ice *H. debilis* Imagine a screening hedge of white sunflowers! These 5' stalks set blossoms with creamy white petals surrounding a rich dark brown disk. Polyheaded and similar to the better-known Italian White, but a superior performer in our trial. ② A=.2g, ~45 seeds, B=.6g, C=2.4g. 6,250 seeds/oz.

5439 Sunflower Sampler For those who wish to get in on the sunflower rage without spending a pile of jing, we'll mix seed for a half dozen or so varieties into one package. Create a lovely display for 80¢. No dwarfs or mammoths. A=.5g, B=1.5g, C=4.5g.





SWEET PEA *Lathyrus odoratus*

Native to Sicily, first domesticated around 1699 when amateur botanist and monk Father Francis Cupani discovered the variety which bears his name and shipped seed to a hothouse grower in England. Painted Lady, a rose- and white-tinted pink, was named in 1737. In the late 1800s extensive breeding work, especially by Henry Eckford who accounted for 115 of the 264 varieties exhibited at the Crystal Palace in 1900, expanded the range of available colors. Around 1900 Silas Cole, gardener to the Earl and Countess Spencer, found a sport with much larger ruffled flowers but less scent than Eckford's varieties. It created a sensation when it was exhibited in 1901. From this variation derive all modern strains including Spencer, Cuthbertson, Knee-Hi and Mammoth. In response to a revived interest in fragrance, Bodger Seeds Ltd. obtained as many of the pre-Spencer varieties as possible and created a mix called Old Spice in the 1970s. Now, when gardeners are again demanding fragrance in individual colors, Bodger has begun to offer the old strains individually.

Soak seeds for 12-24 hours prior to sowing. For earliest blooms, sow indoors 2 mos. before setting out, or sow direct in spring. Likes full sun and moist rich soil. About 350 seeds/oz. Perennial sweet pea is #6296.

4oz and 1# prices are not listed on the grid form, see p. 3 for bulk ordering instructions.

5440 America An antique striated variety, arresting both to eyes and nostrils. Each blossom contains subtle variations of bright reds with creamy white streakings. Heavily perfumed. Looks lovely next to Cupani. First offered in 1896 by Morse-Vaughan. Vines grow to 3'. ② A=2g, ~24 seeds, B=8g, C=24g.

5441 Cupani Oldest and most fragrant of all sweet peas. Celebrated its 300th birthday in a surge of revived interest. Named for the Sicilian monk who found these bicolors growing wild, Cupani combines deep maroon-purple upper petals with deep blue lower petals. Its intoxicating aroma will entice you. 5' vines. 340 seeds/oz. ② A=2g, ~24 seeds, B=8g, C=24g, D=4oz, $12.00.

5442 Little Sweetheart Mix Sweetheart is the most dwarf of all sweet peas, with bushes growing only 8-12". Produces its best blooms in cool fall weather. Bright color range of red, pink, white, rose, lilac and blue. ⑤ A=4g, ~48 seeds, B=12g, C=48g, D=4oz, $8.00. 340 seeds/oz.

5448 Knee High Mix Semi-dwarf 20" bush-type plants need no support, produce full-length stems. ③ A=7g, ~78 seeds, B=28g, C=84g, D=1lb, $16.00.

5454 Mammoth Mix 4-6' staking variety. The best tall mix in our many gorgeous trials. Though temporarily slowed by heat waves, revives during each cool spell and never stops blooming from July to September. Long stems make ideal cutflowers. Mixture of crimson, scarlet, white, lavender, deep rose, medium blue and pink. The purples and reds are the most fragrant. ⑤ A=7g, ~85 seeds, B=21g, C=63g, D= 1lb, $18.00.

5457 Perfume Delight We're always seeking sweet peas with more fragrance, and Perfume Delight delivers. Vines to 3' require staking. Slow bloomers with medium-long stems in a mixture of colors. Fill your gardens and rooms with perfume! ⑤ A=4g, ~48 seeds, B=12g, C=48g, D=1lb, $22.50.

5459 Imperialis Sweet Sultan *Amberboa moschata* Reputedly popularized by the Sultan of Constantinople who wore them to enjoy their thick musky scent. Lovely flowers look like cornflowers, but with a fluffier cushion of petals, in shades of white, pink, lilac, purple and yellow. 2-4' plants have Dusty Miller-like foliage. The scent, strongest when the sun is not, adds to their charm. John Parkinson, who wrote of them in 1629, remarked that their fragrance "surpasseth the finest civet." Easily grown, they prefer well-drained, moderately fertile soil. NEW! ② A=1g, ~280 seeds, B=3g, C=12g, 8,000 seeds/oz.

Prices for annual flowers #5004-5497:
A=80¢, B=$2.00, C=$5.00.

VENIDIUM *V. fastuosum*

Also known as Namaqualand Daisy or Monarch of the Veldt. (Namaqualand is in southwest Africa.) Daisy-like flowers with attractive contrasts close up in dreary weather, but cut and brought indoors will open in ten minutes. Christopher Lloyd in *Garden Flowers from Seed* (#6558) says their large center disks "shine black like a healthy dog's nose." Don't be distracted by the plant's multibranching habit and deep-cut fuzzy leaves. Venidium sprawls $2^1/_2$ ft and needs a dry sunny location to remain upright. Intolerant of wet feet, keels over when saturated. Will look good next to Chinese Forget-Me-Not or Euphorbia. Start indoors, transplant out after danger of frost. Keep deadheaded for long bloom production. Space at least 2' apart. 26,000 seeds/oz.

5460 Exotic Spellbinding deep black centers ringed with bright orange petals edged in black. ③ A=.1g, ~90 seeds, B=.3g, C=1.2g.

5461 Zulu Prince Glorious creamy-white 4" flowers with vivid black centers. ② A=.1g, ~90 seeds, B=.3g, C=1.2g.

5462 Purple Top Verbena *V. bonariensis* One look was all I needed to fall in love with this free-flowering verbena. Don't confuse it with the hybrid dwarf bedding plant (which is available at #5672-76). Proud strong 3-4' stems almost without leaves covered with vibrant purple flowers which thrive in heat and bloom from July to October. Makes an ideal cutflower. ③ A=.1g, ~400 seeds, B=.4g, C=2g. 113,000 seeds/oz.

ZINNIA *Z. elegans*

These showy annuals were named for 18th century German botany professor Johann Gottfried Zinn. One of the easiest to grow from seed, and a favorite for bright color in Maine summers. Zinnia flower essence is used to bring out playfulness and lightheartedness. Cut when flowers are fully mature. Deadhead to continue production. Sow in a sunny spot after last frost, or start indoors for earlier blooms. See also #5690.

4oz size not listed on grid form, see p. 3 for bulk ordering instructions.

5468 Blue Point Formula Mix The most elegant giant dahlia-flowered zinnias we have ever grown, absolutely superb in the 1998 trial when the combination of low rainfall and good heat in late summer created optimal conditions. Densely petaled fully double flowers regularly exceed 4" across, showy yet extremely refined, borne on long stems perfect for cutting. Highlighted by the uniform petal patterns, colors are particularly bright from yellow, orange and white to scarlet, rose-pink and magenta. Will hold better than most even under the stress of high heat and rainfall. 3-$3^1/_2$' plants. The Zinnia of choice for market growers; on a par with State Fair Mix for home gardeners. Highly recommended by Lynn Byczynski in *The Flower Farmer* (#6544) and an instant favorite with our customers last year. We sold 1,180 packets and had to reorder several times. ③ A=.5g, ~50 seeds, B=1.5g, C=9g, 2,800 seeds/oz.

5470 Cactus Bright Jewel Mix Large ruffled blossoms resemble chrysanthemums. Profuse immense blooms in scarlet, orange, pink, yellow. Full sun. 3'. ② A=1g, ~110 seeds, B=7g, C=28g, D=4oz, $10.00. 3,000 seeds/oz.

5474 Gold Medal Mix A formula blend of cherry, orange, pink, purple, scarlet, white and yellow dahlia-flowered blossoms 4-5" across excellent for cutting. Flowers are flat-petaled, semi-double on $3^1/_2$' stems. Bred by Bodger. ② A=1g, ~105 seeds, B=7g, C=28g, D=4oz, $10.00. 3,000 seeds/oz.

5478 Persian Carpet *Z. haageana* These variegated fully double and semi-double 2" flowers borne on 1' stalks hold a long time. They have maroon centers, with white, yellow or gold on the outside. This Mexican Zinnia is smaller and less gaudy than our other zinnias and very pleasing in bouquets. 1952 AAS. ② A=.5g, ~385 seeds, B=5g, C=20g. 22,000 seeds/oz.

5482 Pumila Mix (Cut & Come Again) Small 2' plants with flowers $2^1/_2$-3" across. Wide range of colors includes orange, yellow, white, pink, lavender and scarlet. ② A=1g, ~175 seeds, B=7g, C=28g, D=4oz, $10.00. 4,000 seeds/oz.

5486 Scarlet Flame Even Gene, who doesn't like gaudy zinnias, was attracted to Scarlet Flame's elegant bright scarlet blooms. 3' stems. ② A=1g, ~110 seeds, B=7g, C=28g, D=4oz, $10.00. 3,100 seeds/oz.

5490 State Fair Mix Old-fashioned variety bears a rich array of huge single and double blooms on 30" plants. The blooms are much showier than those in the Gold Medal Mix. Staffer Susan Kiralis loves their intense fully saturated reds and magentas. ② A=.5g, ~40 seeds, B=2g, C=12g, D=4oz, $16.00. 3,000 seeds/oz.

5493 Swirls Zinnia These zinnias wowed everyone who saw them in our 1992 trials with their slightly fluorescent bicolor blooms of rose and white or red and yellow. The 4" flowers are fully double to semi-double with slightly ruffled flat petals borne on 2' stems. ② A=1g, ~190 seeds, B=7g, C=28g, D=4oz, $10.00. 5,400 seeds/oz.

5497 Cutflower Mix A mixture of annual flowers which can be used for cutting. Includes popular types such as aster, bachelor's button, calendula; also some lesser-known kinds. ② A=1g, B=14g, C=56g.

Why don't you folks offer ________________ ? (please fill in the blank)
Can't find your favorite variety? Please send us your suggestions. If possible, please identify your past source for the varieties.

FANCY ANNUALS

A selection of higher-priced annuals, many of which are especially recommended for commercial growers.

Seeds per packet for flowers are approximate. They are intended as guides, not guarantees, because we pack by weight, not by count. Available in two sizes except where noted. **Packet weights are listed with each flower; prices are in a box at the top of each page.**

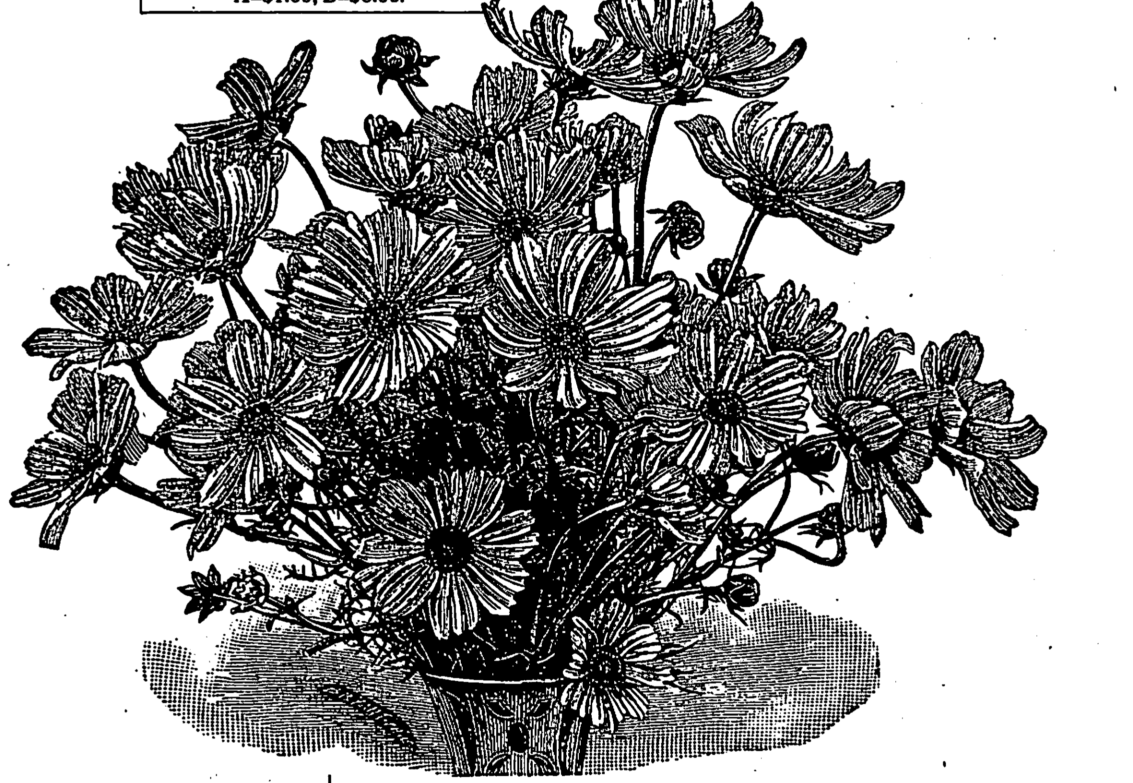
Flowers are arranged here by common name. **See chart on pp. 54-55 for uses and cultural information. A botanical index appears on p. 70.**

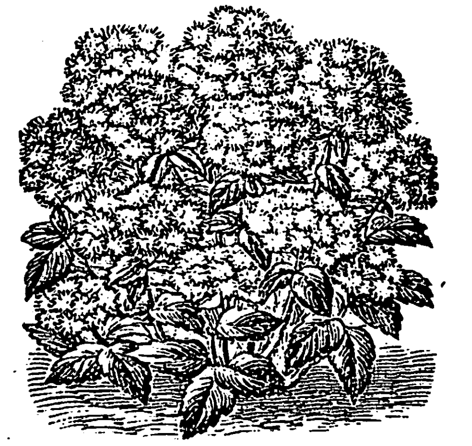
AGERATUM *A. houstonianum*

Showy annual also known as Flossflower. Great for summer borders. Water in hot weather. Will not tolerate frost. Start indoors in a warm spot 6-8 weeks before last frost. Cut for vase when flowers are first opening.

5506 Blue Blazer F-1 hybrid. Puffy deep blue flowers on 8" plant. Very popular for borders and bedding. Starts blooming early, can withstand heat and continue into fall. ② A=.05g, ~300 seeds, B=.2g. 200,000 seeds/oz.

Prices of Fancy Annuals (#5506-5690):
A=$1.80, B=$6.00.





5510 Blue Horizon F-1 hybrid. A long-stemmed cutting variety for everyone who loves ageratum and wants to bring them inside. The more you cut them the more they flower. Lasts a week in the vase. Good for drying. Grows 30" with blue flowers. Interplant with Tall African Crackerjack marigold #5252 for an appealing color contrast. ④ A=.04g, ~150 seeds, B=.2g. 170,000 seeds/oz.

5514 Matsumoto Aster *Callistephus chinensis* A very classy cutflower which may be harvested by the individual stem or in its entirety. Flowers sport distinct yellow centers amidst a variety of shades (apricot, blue, pink, red, rose, salmon and white) about 100 days after sowing. 2" semi-double blooms are concentrated at the top of strong $2^1/_2$' stems. For other asters see #5024-5044. ③ A=.2g, ~90 seeds, B=3g. 13,000 seeds/oz.

5518 Nonstop Tuberous Begonia *Begonia tuberhybrida* F-1 hybrid. A boisterous mix of flamboyant color to awaken your garden! Nine shades, from pink to fiery red, apricot to golden orange, plus yellow and white, create a riot of color in a shady garden border or in hanging pots. Europe's #1 windowbox plant sports showy $3^1/_2$-$4^1/_2$" fully double blooms on vigorous basal-branching stems. Thuja Gardens' lovely display outside their main lodge in Northeast Harbor, ME, inspired us to list begonias. They like shade, moist rich soil, will tolerate a bit of sun. Start indoors, set out after all danger of frost. Needs 75° to germinate; takes 2-3 weeks. Blooms 140 days after sowing. Pelleted seed. Packed by seed count, not weight. ③ A=10 seeds, B=50 seeds.

5520 Kiwi Blue Cerinthe *C. major* var *purpurescens* Little-known bushy annual 12-18" really comes into focus when the cooler nights of late summer and early fall accentuate its colors. The grey-green foliage is as interesting as the profuse blue shrimp-like bracts which bear a myriad of purple flowers. Tolerates heat, but likes cool weather and will withstand light fall frosts, looking best when others are fading. Would make a superb massed border. My good friend Heidi Cooperstein, who knows a thing or two about flowers, was really attracted to this one. Thanks to Hillary Nelson in New Hampshire who offered Cerinthe in her seed exchange and piqued my curiosity with her vivid description. Start indoors 6-8 weeks before setting out after danger of frost. Seed organically grown in Maine. ① A=.6g, ~9 seeds, B=2.4g, 420 seeds/oz.

5522 Chick-a-Biddy *Asarina scandens* This old-fashioned climber is making a comeback. Fresh green small-leaved foliage and masses of $1^1/_4$" lavender or dark purple trumpet-shaped flowers can rapidly fill a 4' trellis. Sow early for quick blooms which will continue in flushes until frost. Its self-twining habit makes it ideal for topiary. Also does well in hanging baskets or climbing from the ground. Surface sow or barely cover after danger of frost is past. Seed organically grown in Maine. ① A=.01 gram ~40 seeds, B=.04g. 4,000 seeds/g.

5552 Versailles Pink Eye Cosmos *C. bipinnatus* A foot shorter and a week earlier to bloom than Early Sensation. Petals light pink at the tips darkening as they approach the yellow centers. Prolific blooms good for cutting. This is the last year we will offer Versailles. *Seed in short supply; order early*. For other cosmos, see **#5134-40**. ④ A=1g, ~135 seeds. *Not available in larger sizes.*

5558 Figaro Dahlia *D.* x *hybrida* Named for Swedish botanist Andreas Dahl. Early and compact, with a wide range of flower forms, including single, semi-double and double blooms. Colors include red, rose, mauve, violet, orange, salmon, yellow and white. Dahlia is sensitive to day length. If sown in March or April needs to be shaded for 10 hours/day during the first four weeks after emergence. Transplant after frost. 10". ⑤ A=.4g, ~40 seeds, B=2g. 2,800 seeds/oz.

FLOWERING KALE *Brassica oleracea*

Sometimes used for garnishes or in salad mixes. 10,000 seeds/oz. See also #5160.

5566 Red Chidori F-1 hybrid. Flowering kale is called *Ha-Botan* in Japan, meaning "leafy peony." The Japanese are world leaders in hybridizing this species and, in Red Chidori, they have brought their work to its ultimate expression. Of all our trial varieties, Red Chidori had the brightest purple outer leaves and the sharpest red centers. These colors reach their apex shortly after frost when other garden hues are fading. Red Chidori leaves have finely ruffled edges which further accent their beauty. ⑤ A=.2g, ~70 seeds, B=1g.

5568 Red Peacock F-1 hybrid. An unusual flowering kale with an open plant habit and large lacinated leaves. Can grow enormous ($1^1/_2$' high and 2' wide), looking a little like a brightened version of Red Russian Kale on steroids! Very stately in the late summer and fall garden. ⑤ A=.2g, ~70 seeds, B=1g.

5570 Flower of the Hour *Hibiscus trionum* So-called because each showy bloom lasts one day, but the bushy 2' tall plants are covered with buds so the effect is free-flowering. Creamy-white 3" five-petaled flowers with burgundy eye. Hardy annual blooms from August through light frosts. Not bothered by beetles as are other mallows. Old Sturbridge Village lists it as a pre-1800 heirloom also known as Bladder Ketmia. Plant in groups in full sun, may be direct seeded. Seed organically grown in Maine. ① A=.2g, ~50 seeds, B=.8g.

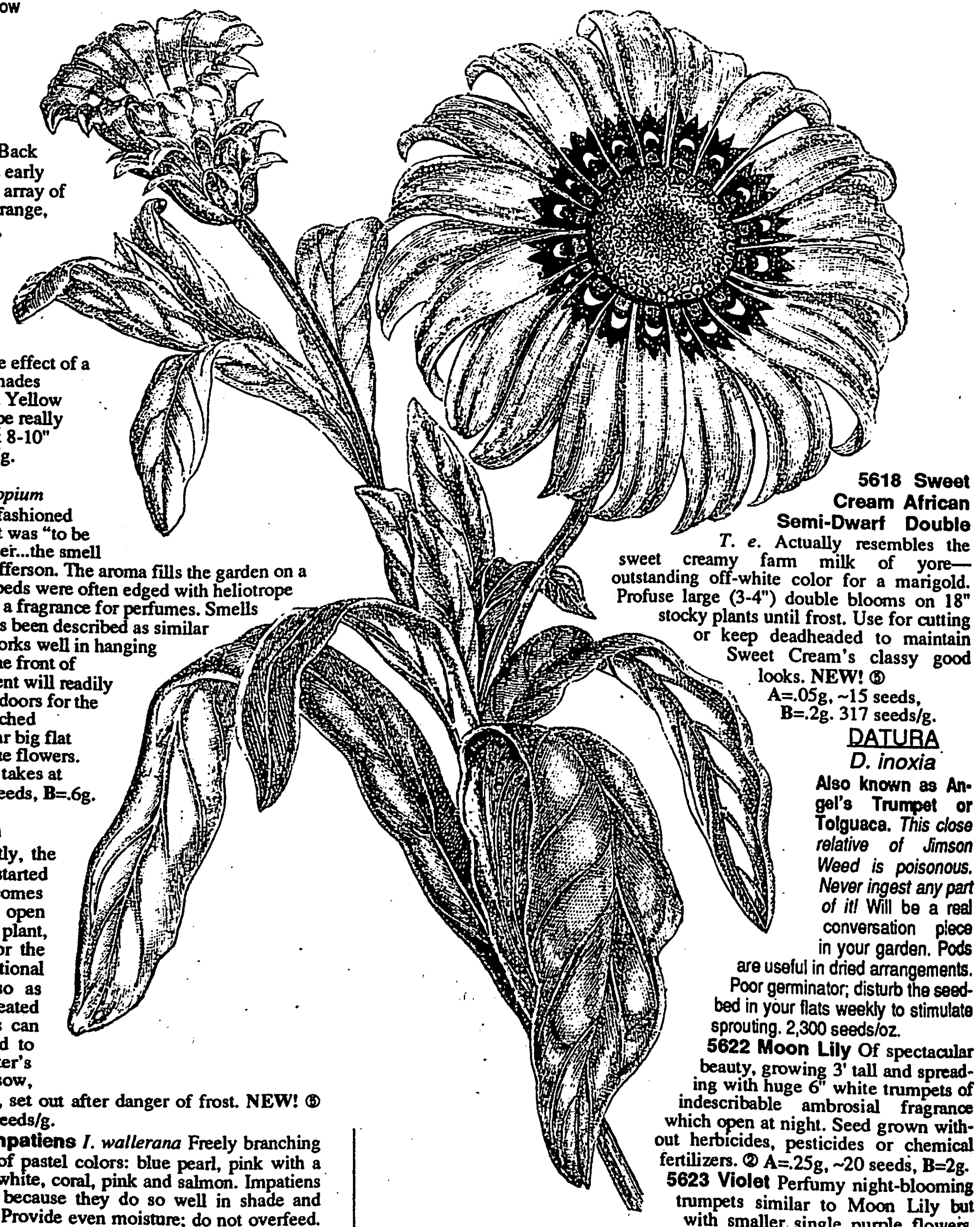
Prices of Fancy Annuals (#5506-5690):
A=$1.80, B=$6.00.

GAZANIA

Named for Theodore of Gaza, a medieval translator of botanical works. Easy to grow and excellent as low border plants. Bright daisy-like flowers tend to close in shade, cloudy weather or cool temperatures so gazanias will be most pleasing planted in full sun. Do not overwater. 14,000 seeds/oz.

5572 Chansonette *G. splendens* Back with an improved color range, these early blooming compact plants exhibit an array of clear bright colors including pink, orange, bronze, white and yellow. ⑤ A=.2g, ~100 seeds, B=1g.

5573 Daybreak Mix *G. rigens* A very early mix of brilliant Gazanias which includes two Fleuroselect Gold Medal winners, Red Stripe, a bright yellow with red stripes that gives the effect of a sunrise, and Bright Orange. Other shades include Garden Sun, Bronze, Bright Yellow Improved, pink and white. Red Stripe really stood out in my 1998 trial. Compact 8-10" plants. ⑤ A=.05g, ~25 seeds, B=.25g.



5576 Marine Heliotrope *Heliotropium arborescens* Native to Peru, an old-fashioned scented flower with a rich history. It was "to be sown in the Spring, a delicious flower...the smell rewards the care," wrote Thomas Jefferson. The aroma fills the garden on a cool, damp day. Victorian-era rose beds were often edged with heliotrope and it is still cultivated in Europe as a fragrance for perfumes. Smells like sweet violet, but deeper, and has been described as similar to vanilla, almond, or cherry pie. Works well in hanging baskets or containers as well as in the front of borders—any location where the scent will readily reach you. It may be transplanted indoors for the winter. 14-18" plants with deeply etched viburnum-like dark green leaves bear big flat clusters of tiny star-shaped royal blue flowers. Somewhat slow, erratic germinator, takes at least 2-3 weeks. ② Pkt.=.1g, ~150 seeds, B=.6g. 42,500 seeds/oz.

5580 Java Orange New Guinea Impatiens *I. hawkeri* Until recently, the best New Guinea Impatiens were started from cuttings, but no longer! Java comes true to type with 2" bright orange open flowers on a small shrub-like 14" plant, providing a clear burst of color for the types of sunny sites where traditional impatiens would droop. Great also as container plants. Perennials best treated as annuals, New Guinea Impatiens can be brought inside at summer's end to spread their cheer through winter's drear. Start indoors, surface sow, 70-80°, takes 14 days to germinate, set out after danger of frost. NEW! ⑤ Pkt.=.02g, ~12 seeds, B=.08g. 600 seeds/g.

5582 Super Elfin Pastel Mix Impatiens *I. wallerana* Freely branching 8-10" plants covered with masses of pastel colors: blue pearl, pink with a rose eye, salmon with a coral eye, white, coral, pink and salmon. Impatiens are the nation's #1 bedding plant because they do so well in shade and require so little care. Start indoors. Provide even moisture; do not overfeed. Need light to germinate. ⑤ A=.03g, ~55 seeds, B=.15g. 50,000 seeds/oz.

MARIGOLD *Tagetes* spp. See also #5228-5252.

5601 Ornament Gem *T. tenuifolia pumila* A third gem in our series of edible signets, studded with multiple tiny fragrant maroon blooms. ③ A=.2g, B=1g.

5606 Queen Sophia French Dwarf Double *T. patula*. Award-winning anemone-flowered dwarf. Each plant produces many bicolored blooms. Flowers are deep orange rust and, as they mature, petals are edged with gold. Named for Queen Sophia of Spain. 10-12". ② A=.7g, ~225 seeds, B=3.5g.

5610 First Lady African Semi-Dwarf Double *T. erecta* Voted the all-time favorite AAS flower. A lovely 20" border or hedge plant, covered with sunny yellow double carnation-like flowers 3½" across which keep coming till frost. ⑤ A=.1g, ~35 seeds, B=1g.

5616 Inca Orange African Semi-Dwarf Double *T. e.* A wonderful home garden marigold completely blanketed with big 4-5" flowers on full 14" plants. The blooms are fully double, start early, and keep going all summer unless they get waterlogged in a storm and break off. A=.1g, ~32 seeds, B=.6g.

5618 Sweet Cream African Semi-Dwarf Double *T. e.* Actually resembles the sweet creamy farm milk of yore—outstanding off-white color for a marigold. Profuse large (3-4") double blooms on 18" stocky plants until frost. Use for cutting or keep deadheaded to maintain Sweet Cream's classy good looks. NEW! ⑤ A=.05g, ~15 seeds, B=.2g. 317 seeds/g.

DATURA
D. inoxia

Also known as Angel's Trumpet or Tolguaca. *This close relative of Jimson Weed is poisonous. Never ingest any part of it!* Will be a real conversation piece in your garden. Pods are useful in dried arrangements. Poor germinator; disturb the seedbed in your flats weekly to stimulate sprouting. 2,300 seeds/oz.

5622 Moon Lily Of spectacular beauty, growing 3' tall and spreading with huge 6" white trumpets of indescribable ambrosial fragrance which open at night. Seed grown without herbicides, pesticides or chemical fertilizers. ② A=.25g, ~20 seeds, B=2g.

5623 Violet Perfumy night-blooming trumpets similar to Moon Lily but with smaller single purple flowers. Seed originally from J. L. Hudson, organically grown by Susan Belding. ① A=.25g, ~20 seeds, B=1.5g.

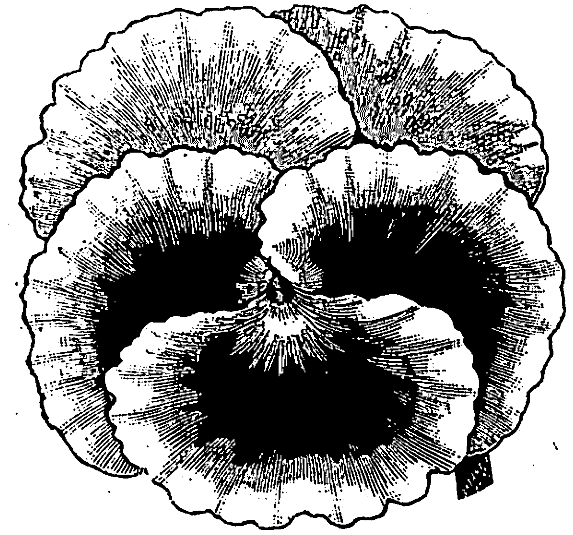
5624 Kniola's Purple Morning Glory *Ipomea purpurea* Beautiful glowing rich deep purple flowers are stunning against lush green foliage. Unlike Heavenly Blue or other similar morning glory varieties, Kniola's starts blooming while it is only 2' tall and still vining. As the vines continue to climb to 8-9', the blooms also continue, lasting the entire season. The deep blooms have a magenta star that radiates out from their pale pink-white throats. An heirloom discovered by a Mr. Kniola at an abandoned farm in Indiana. Roberta Bailey has been saving the seeds for about seven years, culling out the magenta off-types. Seed grown in Maine without herbicides, pesticides or chemical fertilizers. For other morning glories see **#5270-5276.** NEW! ① A=.25g, ~10 seeds, B=1g. ~1,230 seeds/oz.

5625 Peach Melba Nasturtium *Tropaeolum minus* Recommended by Eva Sommaripa and other growers who treasure its unique delicacy. Primrose-cream blossoms with pearly red centers look like miniature cut peaches. Sets its abundant blooms above the compact lily-pad foliage. Seed is expensive but worth it. For other nasturtiums see **#5280-5296.** ② A=1g, ~8 seeds, B=4g. ~225 seeds/oz.

Prices of Fancy Annuals (#5506-5690):
A=$1.80, B=$6.00.

5628 Only the Lonely Nicotiana *N. sylvestris* Named in honor of John Nicot, who introduced tobacco to France. Also known as Woodland Tobacco. This type, featuring clusters of drooping tubular white blossoms, arrived in cultivation from Argentina in 1899. For years we looked for a nicotiana whose fragrance was deep enough to allow us to overlook the plant's gangliness. The dwarf varieties always let us down. But this stately 5' variety looks almost handsome, and its powerful fragrance perfumes the garden both day and night. You might want to plant it near a door or under your bedroom window where you can enjoy the smell during the night. ③ A=.02g, ~640 seeds, B=.4g. 911,100 seeds/oz.

5632 Jolly Joker Pansy *Viola* x *wittrockiana* All-America winner. Although it lacks the usual "face," its vibrant color combination of orange and purple will make you take notice. One of the hardiest pansies, as well as one of the slowest to "stretch." 8". See **#5306** for another pansy. ③ A=.1g, ~70 seeds, B=.5g. 20,000 seeds/oz.



PETUNIA *P.* x *hybrida*

Start indoors in warm place 8 wks before setting out after danger of frost. Do not cover seeds; light aids germination. Use loose medium and avoid overwatering. 280,000 seeds/oz.

5638 Daddy Mix F-1 hybrid. This very showy grandiflora has big 4" ruffled blooms in shades of light blue, orchid, peppermint, pink, plum and strawberry with darker veins. Stunning in baskets, these uniform plants also exhibit good weather tolerance when planted in full sun. 12-15". ⑤ A=.03g, ~300 seeds, B=.12g.

5642 Pink Wave F-1 hybrid. The Wave has caught on with our customers. We offer the pink, with white throats, to complement the purple. Pelleted seed. Packets by seed count. ⑤ A=~10 seeds, B=~40 seeds.

5644 Purple Wave F-1 hybrid. If you've given up on petunias because they're "wimpy" or require too much fussing, try these. Each plant carpets the ground with a spread of 4x4' of vivid fuchsia. Wave showed extreme drought tolerance in our 1995 trial, sailed through light frost and bounced back after torrential rain. Although never deadheaded or cut back, the 3" flowers just kept coming and coming and coming. If you're looking for one to grow in containers or you need to cover a lot of ground or you just want a beautiful sea of color, try Wave. 1995 AAS. Pelleted seed. Packets by seed count. ⑤ A=~10 seeds, B=~40 seeds.

PORTULACA *P. grandiflora*

The familiar Moss Rose is good in hanging planters and most colorful in massed plantings. Easy to grow, can stand heat. Start in a warm spot. Needs light to germinate. Thrives in sandy soil, likes full sun, blooms 8 weeks from sowing. Blossoms close in cloudy weather and late afternoons. 295,000 seeds/oz.

5652 Sundial Mix A dramatic improvement in this South American native, exhibiting early blooming of large 2" fully double flowers which stay open longer than other mixes. During the 1995 drought Sundial excelled, providing a vivid array of cream, fuchsia, gold, peppermint, orange, pink, scarlet, white and yellow on succulent low-spreading 6" plants. Honored as Australia's 1991 Flower of the Year. ② A=.01g, ~85 seeds, B=.05g.

5656 Sundial Peppermint An arresting color combination of light pink brushed with streaks of deep rose evokes an old-fashioned peppermint stick. Our favorite strain in the Sundial mix above. This could be the last year we offer unless sales increase. ② A=.01g, ~105 seeds, B=.05g.

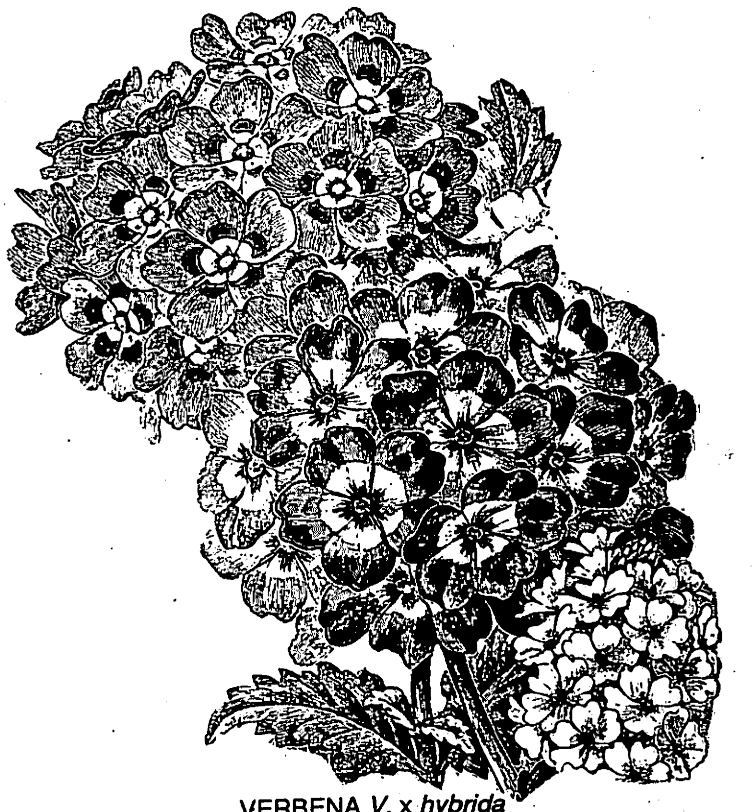
5662 Cleopatra Scarlet Salvia *Salvia splendens* Very bright scarlet blooms on dense 6" flower spikes attract hummingbirds and hold longer before fading than Carabiniere. Compact well-branched 1' plants exhibit very uniform habit and timing. Traditionally used as a bedding plant. Cut the initial flower spikes after they fade to induce further flower development. These bushy floriferous bedding plants are day-length sensitive so must be started early. ⑤ A=.2g, B=1g.

5665 Rocket Mix Snapdragon *Antirrhinum majus* F-1 hybrid. The standard snapdragon for cutting because of its long stems and vibrant colors: pink, red, yellow, orange, white and orchid. Replaced Panorama which it outperformed in our trial. Refrigerate seeds, then expose to light to germinate at 70°. Sow indoors in cool place 8-10 weeks before setting out. When cutting for local production, harvest when more than half the flowers are open. Will last 5-8 days. See also **#6884-6.** ② A=.025g, ~165 seeds, B=.125g, 165,000 seeds/oz.

SUNFLOWERS *Helianthus annuus* See also #5400-5439

5668 Prado Red Fleuroselect novelty winner. The best red sunflower in Donna Dyrek's trials, specially bred in Holland for the cutflower trade, featuring long, long stems. Its brown center disks are surrounded by small rich velvety maroon-red petals which extend the range of sunflower colors. Each 4' multi-branching plant bears 15-18 long-lasting flowers that shed pollen sparingly. Plant alongside Vanilla Ice for a striking contrast. ⑤ A=.5g, ~13 seeds, B=2g, C=1oz, $25.00, not on grid form, see p. 3 for bulk ordering instructions. 710 seeds/oz.

5669 Prado Gold Fleuroselect quality winner in 1993. Golden yellow twin to Prado Red except Gold's brown center has a green indentation at the bullseye. Like Prado Red, multibranching and early to bloom. Enjoy these in rich-hued bouquets. ⑤ A=.5g, ~13 seeds, B=2g, C=1oz, $25.00, not on grid form, see p. 3 for bulk ordering instructions. 710 seeds/oz.



VERBENA *V.* x *hybrida*

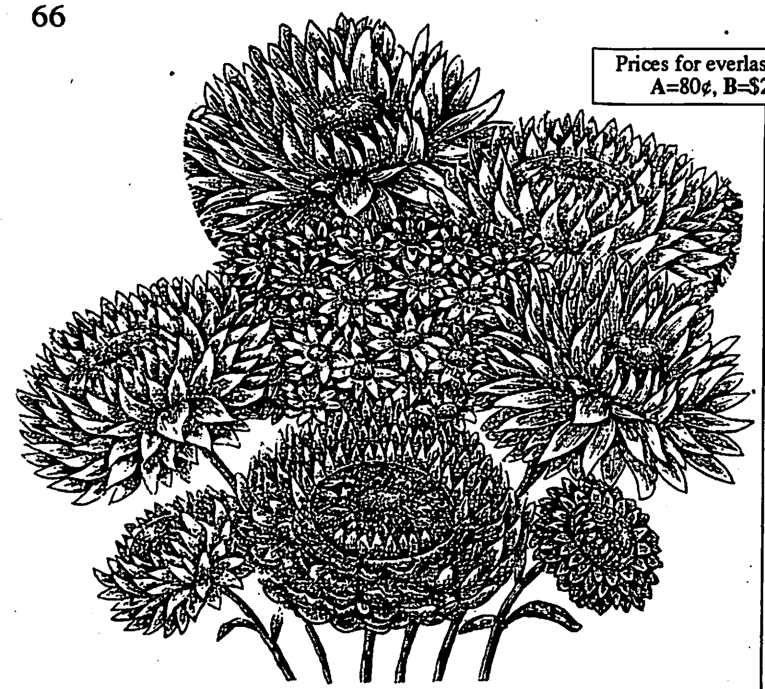
Starry flower clusters cover this 6-10" annual bedding plant. Free-flowering, long-lasting blooms make a stunning vibrant border. Chill seeds 5-7 days in refrigerator before sowing. Start indoors, transplant after danger of frost. 10,000 seeds/oz.

5672 Novalis Deep Blue with Eye Purple blooms with white starlike centers. 1989 AAS. ③ A=.2g, ~70 seeds, B=1g.

5676 Novalis Scarlet with Eye We liked the blue so much that we decided to trial Novalis Mix. The blue and scarlet work so well together in the mix that we opted to carry each individual color. Interplanting the two will give you a striking border. ③ A=.2g, ~70 seeds, B=1g.

5682 Peppermint Cooler Vinca *Catharanthus rosea* Wanted: A low maintenance 8" bedding plant that stands up to the worst heat and drought and is rarely bothered by insects or diseases while blooming profusely from July until frost! Common alias: Madagascar Periwinkle. Frequent whereabouts: Blending into gardens or brought indoors as everblooming houseplants. Relatives: The common vinca or creeping myrtle. Resembles: Impatiens. Last seen: In Fedco Seeds fancy annuals section **#5682.** Reward: 2¼" white blooms with a red "eye" and overlapping petals with a rounded formal appearance. Remains neat and covered with blooms until frost. ⑤ A=.2g, ~150 seeds, B=1g. 21,000 seeds/oz.

5690 Ruffles Mix Zinnia *Z. elegans* F-1 hybrid. Bred for bouquets. Flat-petaled, double to semi-double flowers on long stems. Free blooming, respond to frequent cutting. Yellow, scarlet, pink and cherry blooms. Form an elegant hedge 24-30". Very refined. For other zinnias see **#5468-93.** ② A=.15g, ~15 seeds, B=.6g. 3,000 seeds/oz.



EVERLASTINGS

Seeds per packet for flowers are approximate. They are intended as guides, not guarantees, because we pack by weight, not by count. Available in three sizes except where noted. **Packet weights are listed with each flower; prices are in a box at the top of each page.** Flowers are arranged here by common name. **See chart on pp. 54-55 for uses and cultural information. A botanical index appears on p. 70.** Annuals except where noted.

5705 The Pearl Achillea *A. ptarmica* This hardy perennial bears no resemblance to wild yarrow. Instead it has individual clusters of fully double pure white blooms with a small yellow center, almost like a large double Baby's Breath. Easily cultivated, it spreads readily and makes an effective "wild" border. Makes fine cutflowers from spring until frost, enjoyable either fresh or dried, adding an engaging splash of white to arrangements. Zones 3-10. 2'. ②③ A=.05g, ~350 seeds, B=.15g, C=.6g. 200,000 seeds/oz.

5710 Acroclinium *Helipterum roseum* Also known as Sunrays. Daisy-like flower which may be used fresh as cutflower. Pick in bud stage; will open as it dries. White, rose and pink shades. Start in cool place 2 mos. prior to setting outdoors, or sow direct outdoors after frost. Annual. 2'. ③ A=.2g, ~100 seeds, B=.6g, C=2.4g. 12,600 seeds/oz.

5714 Bells of Ireland *Moluccella laevis* Sets spikes of bright green bell-shaped "flowers" atop $2^1/2$' branching stems. Each green bell is really a showy inflated calyx with a tiny pinkish flower inside. When dried, bells turn creamy white. Needs light to germinate. Likes partial shade; thrives in cool climates. ② A=1g, ~140 seeds, B=3g, C=15g, 4,200 seeds/oz.

5716 Blazing Stars *Liatris spicata* Perennial also known as Gayfeather. 18" spikes of rosy purple flowers for cutflowers or drying. Start indoors in late winter in cool place and set out in spring in 6-8 weeks or direct seed in spring. Takes 3-4 weeks to germinate. Zones 3-9. ②③ A=1g, ~330 seeds, B=5g, C=15g. 9,500 seeds/oz.

5720 Green Gold Bupleurum *B. griffithii* Although not well known except in Dutch flower auctions where it commands a price similar to roses, this unique plant with yellowish flowers and round leaves is gaining attention from dried flower growers. Its well-branched 2' stems air-dry perfectly, retaining their green color and looking like they had been dried in glycerine. Moreover, because each stem fans out, an individual stem provides backdrop for an entire arrangement, either fresh or dried. Start indoors early to reach full growth potential. ③ A=.2g, ~70 seeds, B=.6g, C=6g. 10,000 seeds/oz.

5726 Pink Candle Wheat Celosia *C. cristata spicata* An improved wheat celosia that is more adaptable to growing in northern climes than other wheat-types. Like melons, it requires a little extra attention for success. Start indoors early, transplant before flowering without permitting shock, and use row covers outdoors. Its shining rose-pink plumes on long strong stems are worth the extra fuss. They hold up well as cutflowers and dry beautifully. The 3' clumps are lovely as a vertical pink accent for late season displays. Colors, which lighten during summer's heat, intensify in the cooler temperatures of fall. ⑤ A=.1g, ~85 seeds, B=.5g, C=2g. 24,500 seeds/oz.

5732 Forest Fire Cockscomb *C. c. plumosa* Plume-type celosia or Feather Amaranth shows bright scarlet flowers, with strikingly beautiful bronze-red foliage. 30-36". ② A=.2g, ~300 seeds, B=3g, C=12g. 43,500 seeds/oz.

5736 Chinese Lantern *Physalis alkekengi* Physalis is the Greek word for bladder, referring to the husks. Perennial grown for its deep orange "lanterns," the calyx which surrounds the red fruit. May be sown indoors in warm place. Likes full sun. Dig out every three years to prevent invasion. Zones 3-10. **BACK!** ⑤ A=1g, ~600 seeds, B=3g, C=9g. 17,500 seeds/oz.

Prices for everlastings #5705-5982:
A=80¢, B=$2.00, C=$5.00.

GLOBE AMARANTH *Gomphrena globosa*

Easily grown in any soil, likes hot sun, blooms prolifically. Tolerates some frost. Beautiful clover-like 1" flowers on 2' stems. Also enjoyable as bedding plant. Sow indoors in warm spot, 2 months before setting out. Do not overwater.

5742 Orange Stood out in our 1994 trials for its large reddish-orange blossoms with a hint of yellow undertone, well suited for fall arrangements. Growers will prize its long strong stems and vivid colors. 18". ②③ A=.1g, ~25 seeds, B=.4g, C=1.2g. 7,300 seeds/oz.

5746 Purple Bright purple, almost fuchsia. ②③ A=.1g, ~25 seeds, B=.4g, C=1.2g. 12,000 seeds/oz.

5750 Qis Red Vibrant strawberry-red profuse blooms. **BACK!** ③ A=.1g, ~25 seeds, B=.4g, C=1.2g. 12,000 seeds/oz.

5754 Mix Shades of purple, rose, lavender & white. ② A=.2g, ~50 seeds, B=.8g, C=3.2g. 12,000 seeds/oz.

5762 Honesty *Lunaria annua* Also known as Silver Dollar, Moneyplant, and Moonwort. Winter-hardy biennial has fragrant lavender flowers, but is usually grown for its large coin-shaped silver seed pods which are lovely in winter bouquets. Sow indoors in cool spot before setting out to a sunny location or direct sow spring or fall. 3' ③ A=1g, ~50 seeds, B=14g, C=42g. 1,500 seeds/oz.

5770 Immortelle Mix *Xeranthemum annuum* Papery daisy-like flowers $1^1/2$" across in a wide range of colors; also a nice cutflower, grows to 3'. Grown easily from seed, or can be started early indoors. ② A=.25g, ~190 seeds, B=1.5g, C=6g. 22,500 seeds/oz.

LOVE-IN-A-MIST *Nigella* spp.

5782 Persian Jewels Mix *N. damascena* Profuse blooms in pink, blue and white shades surrounded by a cloud of greenery make lovely bouquets. Seed heads are used dried and are especially nice with a little bit of the flower attached. Direct seed as soon as ground can be worked, or sow indoors in a cool spot 2 months prior to setting out. Plant in full sun. 18" ② A=.4g, ~160 seeds, B=2g, C=14g. 11,000 seeds/oz.

5786 Transformer *N. orientalis* Yellow flowers followed by curiously shaped seed pods that may be "transformed" into seven-pointed stars by splitting the pods open at the seam and folding them back in a form of floral origami! Unique and easy to grow. 2' tall. ③ A=.5g, ~200 seeds, B=2g, C=8g. 11,400 seeds/oz.

5790 Exotic *N. hispanica* Nikos has a single velvetleaf plant growing in her field from which she harvests starry seed pods every year for Christmas ornaments. The velvetleaf is a farmer's bane, a pernicious weed, but oh, those pods! Exotic's golden brown pods are similar to velvetleaf's with a more spidery appearance that will add interest and volume to any dried arrangment. Unlike velvetleaf, this annual won't be a nuisance in the field. Doubles as a serviceable cutflower blooming with an arresting shade of deep blue—almost purple—with open form and striking maroon stamens. Atop 16" stems, the blossoms hold longer in a bouquet than other Love-in-a-Mists. Likes full sun or light shade. ③ A=.1g, ~90 seeds, B=.4g, C=2g. 25,500 seeds/oz.

5804 Tricolor Salvia *S. viridis* Also known as painted sage. This prolific little beauty is splendid both as a dried flower or as a filler in fresh arrangements. Although its leaves are entirely green, it gains its name from its white and blue flowers set off by large pink-to-purple bracts. Easily air-dried, it will remain very colorful, flowering until frost if old blooms are removed. 18" stems. Needs well-drained soil. ② A=.5g, ~500 seeds, B=2g, C=6g. 19,000 seeds/oz.

5810 Ping Pong Starflower *Scabiosa stellata* Also called Mourning Bride. Small white flowers mature to ball-shaped many-faceted seed heads. Each facet has a delicate maroon star embossed on its center. 2' annual. ③ A=.4g, ~10 seeds, B=2g, C=6g. 800 seeds/oz.

Prices for everlastings #5705-5982:
A=80¢, B=$2.00, C=$5.00.

STATICE *Limonium sinuatum*

Faithful standby in everlasting bouquets; also good in fresh arrangements. Annual reaches 2-$2^1/2$' on stiff winged bright green stems. Flowers may be gathered for drying many times throughout summer. Grow in full sun. Seed is rubbed for easier germination. 8,400 seeds/oz.

5816 Apricot ③ A=.2g, ~60 seeds, B=1g, C=4g.

5820 Heavenly Blue Medium-deep violet-blue. ②③ A=.2g, ~60 seeds, B=1g, C=4g.

5824 Lavender ② A=.2g, ~60 seeds, B=1g, C=4g.

5828 Rose Beauty Red. ② A=.2g, ~60 seeds, B=1g, C=4g.

5832 Purple Monarch Deep purple. ② A=.2g, ~60 seeds, B=1g, C=4g.

5836 White ② A=.2g, ~60 seeds, B=1g, C=4g.

5842 Mixed Colors ② A=.4g, ~115 seeds, B=2g, C=6g.

5846 German Statice *Goniolimon tataricum* Large silvery-white flower heads for drying. Grow indoors in a cool place 6 to 8 weeks, set out in early spring, or direct seed early spring or late fall. Likes heat and good drainage. Perennial. Clean seed. 20". ② A=.05g, ~50 seeds, B=.2g, C=1g. 31,000 seeds/oz.

5852 Russian Statice *Psyllostachys suworowii* Long gracefully curved branched spikes with bright rosy-pink flowers. Good color retention. A poor germinator. Annual reaches 18". Originally from Turkestan. ③④ A=.2g, ~1,280 seeds, B=.6g, C=1.8g. 175,000 seeds/oz.

5860 Gabriele Rose Beauty Strawflower *Helichrysum cassianum* Each stem produces a cluster of small daisy-like rose pink flowers with yellow centers. The doubled petals create a full "starry" effect. The 16" plants are easy to grow, like full sun, and are already nearly dry when fully developed. Their texture and ability to hold color well enable them to fill a significant area in arrangements. ③ A=.1g, ~27 seeds, B=.5g, C=2g. 8,000/oz.

STRAWFLOWER *H. bracteatum*

The freeblooming strawflower is good for border color as well as for drying. Monstrosum varieties grow 30-40" tall, have 2-$2^1/2$" fully double flowers. Grow in full sun. Gather blossoms before fully opened. Like warm weather but will bloom into fall.

5864 Monstrosum Fire Ball Bright red. ③ A=.2g, ~260 seeds, B=1g, C=5g. 36,000 seeds/oz.

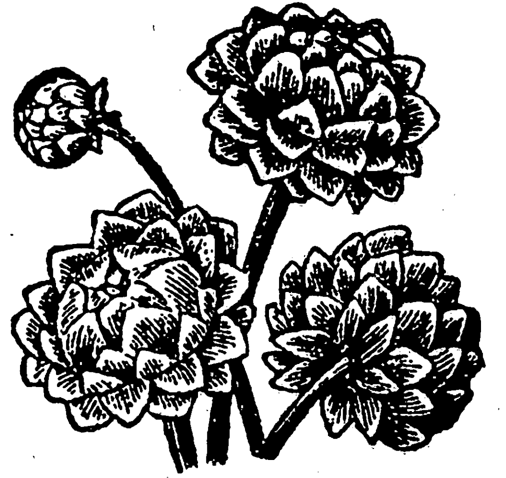
5868 Monstrosum Silvery Rose A very subtle bicolor with pink center petals surrounded by silvery white. Borne on well-branched plants that start producing $3^1/2$-4 months after indoor seeding. ③ A=.2g, ~260 seeds, B=1g, C=10g. 36,000 seeds/oz.

5872 Monstrosum Mix Hot pink, light pink, white, gold and deep rose. ③ A=.33g, ~525 seeds, B=7g, C=28g. 45,000 seeds/oz.

5876 Bikini Mix These bikinis bear bright pink, red, white, yellow and gold double flowers on dwarf 14-18" plants in just 12 weeks. Several commercial arrangers we know prefer them to the taller strawflowers. ③ A=.1g, ~130 seeds, B=.8g, C=3.2g. 36,000 seeds/oz.

5884 Sweet Annie *Artemisia annua* Also known as Sweet Wormwood. We associate its pungent fragrance with the Common Ground Fair where so many vendors offer it and where we sell more seed than for any other item. I hang a whole plant indooors to perfume my house. Annie grows up to 5', with light green leaves valued for everlasting wreaths. Used in China, where it's known as *Qing Hao*, as an anti-malarial and anti-microbial. It will reseed itself vigorously. Seed must be frozen for 2 days, then germinated in light. Seed grown without herbicides, pesticides or chemical fertilizer. ② A=.2g, ~50 seeds, B=.6g, C=2.4g. 7,000 seeds/oz.

5890 Grandiflora White Winged Everlasting *Ammobium alatum* To some people its branches look winged...to me they just look sinuous. No argument, though, that its white petals with yellow centers look mighty good in arrangements. Sow indoors 8 to 10 weeks before setting outdoors in sunny location. 24". ② A=.5g, ~1,200 seeds, B=2g, C=6g. 67,500 seeds/oz.



GRAINS & GRASSES

Grasses are a special tool in the flower arranger's kit. Choose these decorative annuals for their differing forms as well as for their colors. The intricate designs of their heads make great accents.

5910 Sheba Barley *Hordeum vulgare* Sheba's grand display will interest any gardener with even the barest of aesthetic ambitions, including those totally uninterested in harvesting the grain. (Incidentally, have you ever baked Tassajara barley bread with roasted barley flour? On second thought, let's not ignore the grain!) Sheba is a 6-row naked-seeded spring barley which originated in Egypt. Its strong 4' plants don't lodge; look magnificent in late summer. Once you try it you'll never be content with an all-vegetable garden again. Seed grown without herbicides, pesticides or chemical fertilizers. ① A=28g, ~885 seeds, B=84g. *Not available in size C, order size B.*

5930 Red Broom Corn *Sorghum vulgare* (105 days) Not a true corn, broom corn looks and grows like corn but develops no ears, producing instead, a tall spray of seed heads at the top of the plant in lieu of a tassel. These 2-3' sprays are laden with shiny red $^1/8$" seeds which birds love. Incorporate seeds into edible bird feeder wreaths or leave them intact to add a bit of variety to traditional fall decorations, or comb them out of the dry stalks and tie the seedless heads together to make straw brooms. Broom corn is the true source of our natural straw broom. Stalks will grow up to 10' in an optimal season, though most years they will be 7-9'. ① A=4g, ~190 seeds, B=12g, C=36g. 1,600 seeds/oz.

5940 Calico Popcorn *Zea mays* (105 days) An heirloom dual-purpose corn with 5-8" ears that look like smaller versions of Indian corn. The shiny bright ears come in an array of colors, with red, yellow and calico most common, but brown, purple, blue, white and other combinations possible. Kernels are smaller than those of most Indian corns, but larger than conventional popcorns. Calico is both decorative and edible so you can hang it on your door in fall and pop the very same batch on Thanksgiving. Seed grown by the Biseks in Minnesota. ① A=28g, ~270 seeds. 4,000 seeds/lb. *Not available in larger sizes.*

5950 Hare's Tail *Lagurus ovatus* Grown for its soft grey-to-white dense wooly conical heads which feel like rabbit's fur and will tickle your fancy. Easy to air-dry; make a great addition to everlasting arrangements. 1' stems. ③ A=.1g, ~180 seeds, B=.5g, C=2g. 51,000 seeds/oz.

5958 Foxtail Millet *Setaria macrocheata* Its graceful 3-6" golden seed heads bobbing on an August breeze attract attention even before harvest. After harvest, Foxtail Millet makes a striking counterpoint in floral displays. Customers have been asking for this specific strain because its heads are softer and look less seedy than other types. Plant in June, harvest mid to late August. ② A=1g, ~460 seeds, B=4g, C=28g. 13,000 seeds/oz.

5964 Quaking Grass *Briza maxima* Also known as Totter Grass. An old favorite for floral designers. The large $2^1/2$" rattle-like seed heads hang from strong 14-16" stems. ② A=1g, ~190 seeds, B=5g, C=15g. 5,500 seeds/oz.

5972 Black Sorghum *Sorghum nigrum* 6-8' plants topped with robust oval black inflorescences. Shorter and earlier than other sorghum varieties which often reach 12'. Sorghum, originally from Africa, is cultured in the South for the sweet syrup of its stalks. In the ornamental trade it is used as the focal point for large arrangements. Harvesting the heads at the right stage is an exact science; gotten too early they are not dark enough, too late they may discolor or shatter. ① A=1g, ~60 seeds, B=4g, C=12g. 1700 seeds/oz.

5982 Spelt *Triticum spelta* Spelt has been cultivated since ancient times. A hardy variety of wheat which is very tough, highly adaptable to our rigorous climate and grows well even in poor soils, Spelt sports a rich golden shaft with somewhat 4-sided 3-5" spikes. Although its spikes are slender and loose, the heads are tough and won't shatter. Spelt is good for braiding because it has a long shaft before the first joint. Heads show quite a color range from green to green-gold to white. Seed organically grown in Maine. ① A=1g, ~8 seeds, B=4g, C=28g, 225 sds/oz.

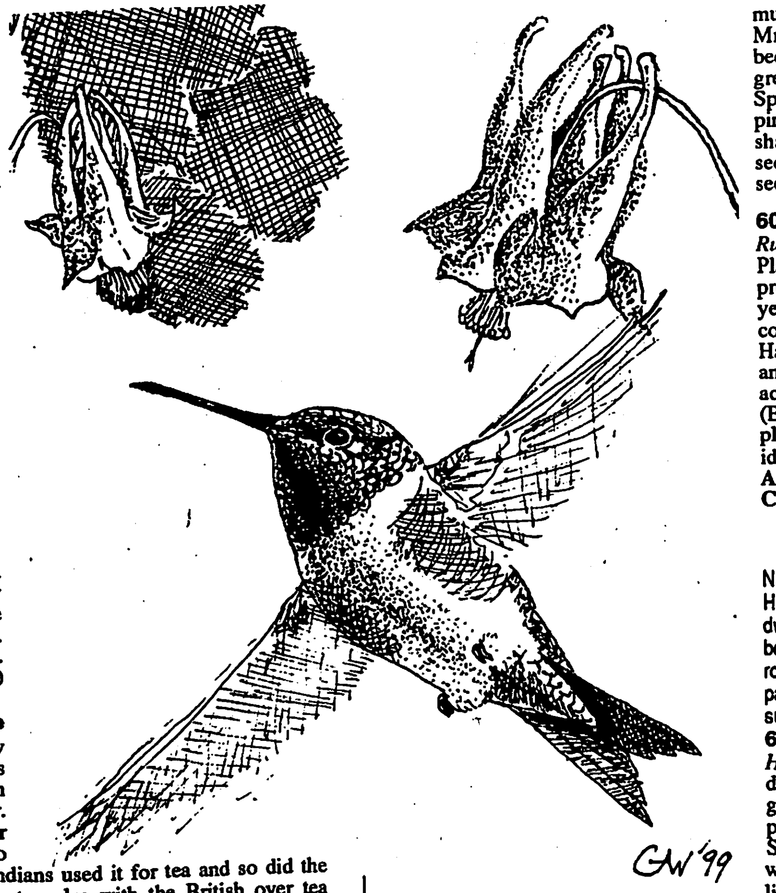
PERENNIAL FLOWERS

Prices for perennials #6008-6336:
A=80¢, B=$2.00, C=$5.00.

Seeds per packet for flowers are approximate. They are intended as guides, not guarantees, because we pack by weight, not by count. Available in three sizes except where noted. **Packet weights are listed with each flower; prices are in a box at the top of each page.**

Flowers are arranged here by common name. **See chart on pp. 54-55 for uses and cultural information. A botanical index appears on p. 70.**

For other perennials, see #4512, 4734, 4742, 4774, 4776, 4782, 4786, 4806, 4826, 4836, 4866, 4900, 4962, 4964, 4984, 4986, 4990, 5705, 5716, 5846, 6892. Also see our Trees catalog for perennial plant crowns.



6008 Cerise Queen Achillea *A. millefolium* Also known as Pink Yarrow. Easy to grow and tolerant of drought, heat and poor soil. Beautiful cherry-red flower heads 2-4" across on 18" stems with lacy foliage. A good border plant. Needs light to germinate. Start indoors and transplant out. Zones 3-10. ② A=.1g, ~700 seeds, B=.5g, C=3g. 200,000 seeds/oz.

6018 New England Aster Mix *Aster spp.* Mix developed by Susan Belding of Old Stage Farm consists of a cultivated and a wild variety in two shades of purple: one bright and one light. In the usual aster form: daisy-like many-rayed flowers with yellow centers. Very showy in the fall when other flowers are on the wane. 3-5' Prechill for 2 weeks, surface sow: needs light to germinate. Seed organically grown. Zones 4-8. NEW! ① A=.05g, ~90 seeds, B=.2g, C=.6g. 51,000 seeds/oz.

6020 Single Alba Baby's Breath *Gypsophila paniculata* Lovely as a border plant in masses, bearing many tiny single white flowers. If cut before fully opened, useful as an everlasting. Seeds may be sown direct, do not cover. Grows to 3'. Zones 4-8. ② A=.7g, ~940 seeds, B=7g, C=21g. 36,000 seeds/oz.

6022 Panorama Red Shades Bee Balm *Monarda didyma* Bushy clump-forming 30" perennial that bears 1-2 whorls of true red fringy flowers on each stem from mid to late summer. Panorama Red Shades is a new cultivar that comes true to color from seed. Also known as Oswego Tea; the Oswego Indians used it for tea and so did the colonial American separatists in their struggles with the British over tea taxes. Also used medicinally for its antiseptic and antimicrobial compounds. Attractive to butterflies, hummingbirds and, of course, bees, Monarda can grow in either sun or shade. In shade its bloom time is lengthened but it can be blighted by powdery mildew (which lessens its attractiveness but not its longevity). Direct seed or transplant, surface sow in spring or summer, takes 14 days to germinate. Zones 4-9. Seed organically grown. NEW! ③ A=.02g, ~90 seeds, B=.06g, C=.24g. 56,800 seeds/oz.

6028 Blue Clips Bellflower *Campanula carpatica* Masses of light cobalt blue bellflowers dance 8" high above a tidy mound of foliage. A very hardy perennial that is easy to grow, Blue Clips will bloom in sun or partial shade from June to October. Zones 4-10. ③ A=.05g, ~600 seeds. 340,000 seeds/oz. *Not available in larger sizes.*

6034 Butterfly Weed *Asclepias tuberosa* Also called Pleurisy Root. Native to North America and widely adaptable, this bright sun-loving perennial provides a bold splash of orange from June until frost. Vigorous mounded 2x2' plants bear broad 5" heads of waxy flowers attractive to butterflies. Both the flowers and pointed seedpods are useful for cut arrangements. Native Americans used it to combat lung and throat troubles and to soothe wounds and sores. Germinates in 3 weeks at 70°. Choose a permanent site with well-drained fertile sandy soil because its tuberous roots do not like to be disturbed. Direct sow in spring or fall. Named by the Xeriscape Demonstration Garden in Plainville, NY, as an exceptionally drought-tolerant performer. Zones 4-9. ②③ A=.2g, ~40 seeds, B=.6g, C=3g. 5700 seeds/oz.

6038 Red Catchfly *Silene dioica* This European native has adapted nicely to the cottage gardens of cold New England where it puts on a show from late spring though most of the summer, reblooming when cut. A semi-evergreen 2' perennial with erect branched flowering stems of bright pink flowers. The little seed pods that form at the end of the season are useful in dried arrangements. Thrives in full sun or light shade. Easy to grow, takes approximately 2 weeks to germinate at 65-70°. Zones 4-9. Seed organically grown in Maine. NEW! ① A=.02g, ~8 seeds, B=.1g, C=.4g. 400 seeds/g.

COLUMBINE *Aquilegia* spp.

To many, columbines are an essential part of the cottage garden or border. Their spurred flowers in mixed colors lure the fairies into the garden. Like moist well-drained soil, sun or partial shade. Need light to germinate; take 3-4 weeks. Zones 3-10.

6042 Mrs. Scott Eliot Mixed *A. caerulea* Free-blooming white, red, lavender and pink spurred flowers rising to 30" on strong stems. Pre-chill seed 3-4 weeks. Will bloom 1st season if seeds are sown indoors in early spring. Do not cover. Flowers May and June, attracts hummingbirds. ③ A=.6g, ~80 seeds, B=1.8g, C=5.4g. 3,800 seeds/oz.

6048 European *A. vulgaris* A much better landscape plant than Mrs. Eliot or McKana Giants because its leaves will remain green through the whole season. Spurless blossoms are mostly pink, with a few purple and white shades. 2½'. ③ A=.3g, ~240 seeds, B=1.2g, C=6g. 22,500 seeds/oz.

6054 Goldsturm Coneflower *Rudbeckia fulgida* 1999 Perennial Plant of the Year offers a profusion of shining golden yellow flowers with dark central cones in August and September. Hardy perennial transplants well and has larger flowers (up to 5" across) than its wild counterpart (Black-Eyed Susan). The 2' plants have long, strong stems ideal for cutting. Zones 3-10. ③ A=.1g, ~90 seeds, B=.4g, C=1.2g. 25,000 seeds/oz.

CORAL BELLS
Huechera spp.

Named for Johann Heinrich von Heucher, a German botanist. Their dwarf, compact habit makes coral bells excellent for low borders and rockeries. They like good soil and partial shade, but will tolerate full sun. Zones 4-10. 560,000 seeds/oz.

6062 Bressingham Hybrids *H. sanguinea* Palest pink to deepest crimson sprays of graceful bells rise from 18" hardy plants of heart-shaped foliage. Start indoors in cool place 8-10 weeks before setting out. Need light to germinate. ③ A=.02g, ~400 seeds, B=.1g, C=.3g.

6064 Purple Palace *H. micrantha* This striking perennial border plant stood out in our tour of Zone 4 Perennials' gardens in Sidney. Its showy 12" ivy-shaped mahogany-red leaves (discard the few plants that make green foliage) make it an attractive ground cover. Its small white bell-shaped flowers are insignificant. Divide and sidedress every three years. ③ A=.02g, B=.06g, C=.18g.

6068 Early Sunrise Coreopsis *C. grandiflora* 1989 AAS was based on its ability to bloom weeks earlier than other Coreopsis varieties. Dense well-branched 18" plants are loaded with 2" semi-double vivid yellow blooms. Start indoors in cool place 6-8 weeks before setting out in sunny spot. Do not cover seed. Leave dead foliage on plant until spring. Zones 3-10. ⑤ A=.1g, ~40 seeds, B=.3g, C=.9g. 12,000 seeds/oz.

DELPHINIUM spp.

The Pacific Giants were developed in California after World War II. Stately dense racemes make delphinium excellent as a background plant, in the border, and as a cutflower. Likes sun, moist soil, can tolerate some shade. Heavy feeder; sidedress in spring with well-composted manure. Zones 3-7. All types 13,000 seeds/oz.

6080 Astolat Pacific Giant *D.* x *elatum* Pastel mix in lilac, raspberry and rose with dark bees. 6'. ② A=.2g, ~90 seeds, B=.6g, C=1.8g.

6084 Black Knight Pacific Giant Intense dark purple with black bees. Stately and breathtaking. 6'. ⑤ A=.2g, ~85 seeds, B=.6g, C=1.8g

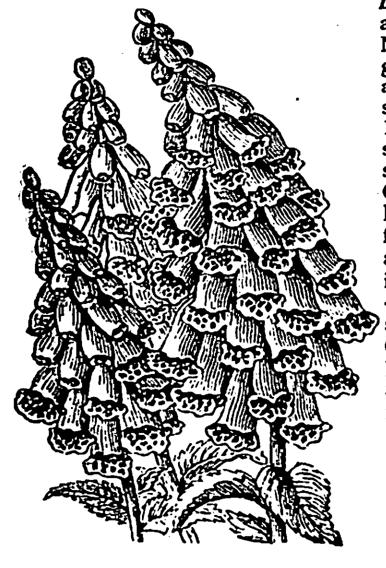
6088 Summer Skies Pacific Giant Light heavenly blue with white bees. 6'. ② A=.2g, ~85 seeds, B=.6g, C=1.8g.

6094 King Arthur Pacific Giant Velvety royal purple with white bees. 6'. ② A=.2g, ~85 seeds, B=.6g, C=1.8g.

6098 Connecticut Yankee Mix *D.* x *cultorum* Dwarfed version grows only 3'; good where wind is a problem. 1965 AAS in blue, purple, lavender and white. ④ A=.25g, ~110 seeds, B=1g, C=3g.

"You guys rock. Love your catalog."

Prices for perennials #6008-6336:
A=80¢, B=$2.00, C=$5.00.



6110 Foxy Digitalis *D. purpurea* Also known as Foxglove. 1967 AAS. No wonder customers clamored for us to get Foxy. A breeding breakthrough allows this biennial to bloom the first season. Foxy starts blooming when only 18" high—just five months from seed—and continues with up to nine spikes apiece as it grows to a mature 3'. Grows easily in sun or part shade. Foxy's thimble-shaped flowers range from cream yellow to pinks, with many attractive spotted markings. Entire plant is poisonous. Zones 4-10. ④ A=.1g, ~1,000 seeds, B=.4g, C=2.4g. 272,500 seeds/oz.

6120 Blue Flax *Linum perenne* subsp. Lewisii Also known as Prairie Flax. Single light-blue flowers with finely cut foliage for borders or rock gardens. New flowers open every morning all summer, fade in afternoon heat. Likes full sun. 9-12". Start indoors in a cool place 6-8 weeks before setting out or direct seed in cool soil in spring or fall. Zones 4-9. ③ A=1g, ~750 seeds, B=7g, C=28g. 21,000 seeds/oz.

6130 Grandiflora Mix Gaillardia *G. grandiflora* Also known as Blanketflower. Easily grown perennial sports showy fringed daisy-like flowers of maroon red edged in gold which will bloom from June to frost. Strong 2½' stems are good for cutting. Will blend right into fall arrangements. Seedheads are as arresting as its lovely blooms. Prefers dry, sunny locations to moist fertile ones. Will bloom the first year if sown early. Zones 3-9. ② A=.25g, ~85 seeds, B=1g, C=4g. 9,500 seeds/oz.

HOLLYHOCK *Alcea rosea*

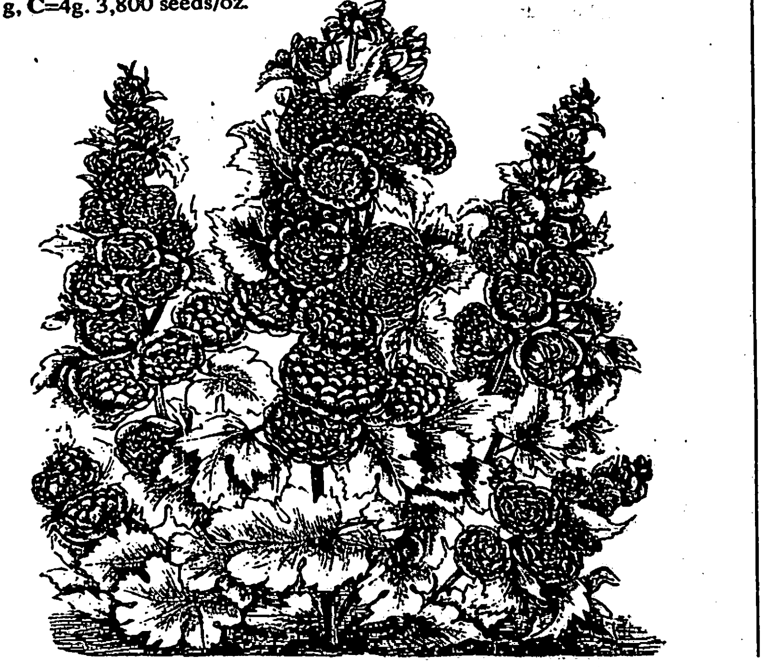
An old-time favorite for background color. Biennial, will reseed in a good year. Needs staking. Cut flower stalk to induce rebloom. Likes full sun, lots of room, and moist soil. Seed may require alternate freezing and thawing to break dormancy. Germinate in 10 days at 70°F. Start indoors in a warm place 2 mos. prior to planting. Zones 3-8. 3,240 seeds/oz.

6138 Aunt Rose's *Regret not available this year; we hope to have in 2001.*

6140 Chater's Double Mix Double flowered in shades of red, pink, yellow and white. Dates back to the 1880s. 4-5'. ② A=1g, ~115 seeds, B=5g, C=15g.

6146 Indian Spring Single Mix Customers asked us to find an old-fashioned single. 7' beauty favored by hummingbirds in shades of red, yellow, white and rose. 1939 AAS. ②③ A=.25g, ~25 seeds, B=1g, C=3g.

6152 Black Hollyhock *A. r.* var. *nigra* Shimmering burgundy-black single flowers characterize this heirloom hollyhock which blooms the second year. Biennial lasts 3-4 years in favorable conditions. Surface sow inside in April. Overly rich potting mixes will encourage damping off. Seed organically grown in the western mountains of Maine. This may be the same black hollyhock grown by Thomas Jefferson at Monticello. ① A=.25g ~32 seeds, B=1g, C=4g. 3,800 seeds/oz.



6170 Helen Mount Johnny Jump Up *Viola tricolor* Also known as Heartsease Pansy. This 4-6" favorite bears tricolor blooms in violet, lavender, and canary yellow. Small abundant flowers like partial shade. Can be direct seeded early spring for flowers late in season or sown in fall for earlier blooms the following year. Some call it invasive, others enjoy its cheerful spreading habit. Flowers make edible decorations with a faint wintergreen taste. Zones 3-9. ② A=.5g, ~450 seeds, B=1.5g, C=4.5g. 25,500 seeds/oz.

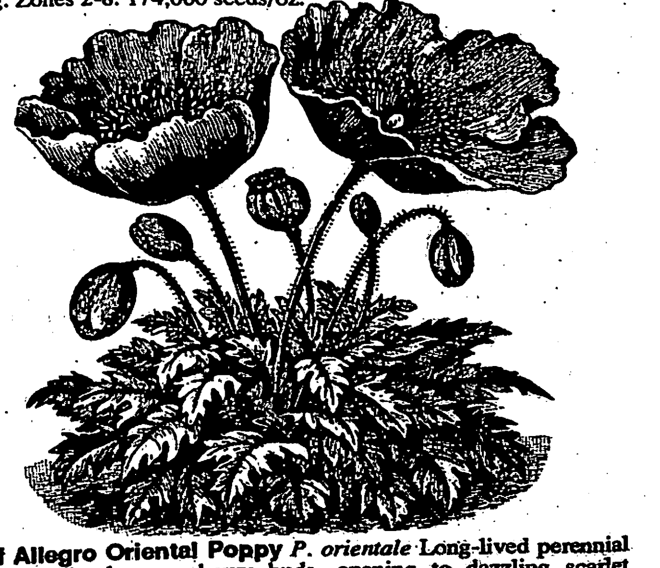
6186 Russell Hybrids Choice Mix Lupine *Lupinus polyphyllus* Bred by George Russell of York, introduced 1937, won coveted Gold Medal from the Royal Horticultural Society. Dense spikes with large flowers in full range of colors. They like a cool, moist spot and sandy soil. Can be sown indoors in late winter, or outdoors in early spring or late fall in full sun. 3'. Seeds and seed pods are poisonous. Zones 4-9. ② A=1.4g, ~50 seeds, B=7g, C=28g. 1,400 seeds/oz.

6196 Maiden Pink *Dianthus deltoides* Known as pinks, not for their color but for their serrated petal tips which look pinked. Dense green mat of 6" plants topped with flowers which bloom all summer in a variety of bright red, purple magenta, pink, and white with a red ring. Likes sun, well-drained to dry soil. Zones 2-10. ③ A=.05g, ~275 seeds, B=.2g, C=1g. 157,000 seeds/oz.

6204 Maltese Cross *Lychnis chalcedonica* Desirable 3' border plant, also known as Red Campion, excellent for cutflowers. Produces brilliant scarlet florets in a five-part cross, attracts hummingbirds. Makes a hot color combination with coneflowers and Gaillardia. Thomas Jefferson grew these at Monticello in 1807. Start indoors in early spring or midsummer for blooms next year. Do not cover seeds. Like moist soil and full sun. Zones 3-10. A=.4g, ~55 seed, B=2g, C=6g. 4,000 seeds/oz.

6234 New Hybrids Mix Phlox *P. paniculata* F-1 hybrid. Perennial phlox blooms from June till frost. Excellent for borders and cutflowers. Mix of white, pinks, reds and lilacs. Freeze seeds 10 days before sowing indoors, or direct seed in cold soil. Slow germinator, takes 3-4 weeks. Likes full sun. 3'. Zones 3-9. ③ A=.1g, ~8 seeds, B=.3g, C=.9g. 2,500 seeds/oz.

6244 Gartford Giants Mix Poppy *Papaver nudicaule* Known as Iceland Poppy. Delicate white, yellow, gold, apricot, orange blossoms from May to frost. Direct seed in spring in a sunny spot. 1'. ② A=.4g, ~2,450 seeds, B=4g, C=12g. Zones 2-8. 174,000 seeds/oz.



6254 Dwarf Allegro Oriental Poppy *P. orientale* Long-lived perennial grows 16". Fern-like leaves, showy buds, opening to dazzling scarlet flowers with contrasting black eyes. Sow in June, transplant in October for flowers the following summer. Plant alongside border perennials and ornamental grasses. Zones 2-8. ③ A=.05g, ~250 seeds, B=.2g, C=.6g. 145,000 seeds/oz.

6262 Potsdam Mix Primrose *Primula vulgaris* These tidy harbingers of spring burst forth with a shot of bright color just when it's most needed, in late April or early May. Resemble small bouquets in pink, blue, yellow and red with yellow centers. Most attractive massed in a low border planting or under a canopy of trees. They like partial shade and prefer a moist well-drained soil high in organic content. Some seasons a second full blooming will poke through the carpet of autumn leaves. Zones 3-8. ③ A=.04g, ~35 seeds B=.12g, C=.36g.

6266 Queen of the Meadow *Eupatorium purpureum* Also known as Joe Pye Weed or Gravel Root. A "queenly" native: stately, tall and beautiful, with dense florets of dusty pinkish purple flowers and foliage that releases the scent of vanilla when crushed. At 5-9' tall, it makes an impressive background plant and a good cutflower. Medicinally, the root is used to treat chronic irritable bladder, urinary infections, kidney stones, menstrual cramps and prostate infections. Also stimulates circulation and reduces inflammation. Does best in moist well-drained areas, full sun or part shade. Surface sow in spring or fall; needs stratification unless sown in fall; takes 3 weeks to germinate; direct seed or transplant. Zones 4-9. Seed organically grown in Maine. NEW! ① A=.02g, ~50 seeds B=.1g; C=.4g. 2,500 seeds/g.

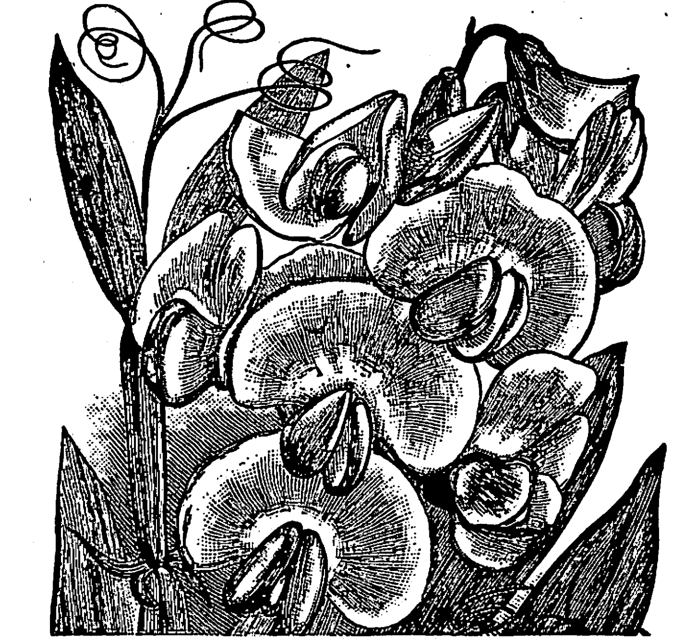
6272 Alaska Strain Shasta Daisy *Chrysanthemum* x *superbum* 3'. Clean white flowers with bright yellow centers make good cutflowers and border plants for sunny locations. Looks good with Gaillardia and Coreopsis. One of the easiest perennials to grow; will usually bloom first year if started indoors in spring and transplanted when soil warms. Zones 4-10. ②③ A=.5g, ~475 seeds, B=4g, C=16g. 27,000 seeds/oz.

Prices for perennials #6008-6336:
A=80¢, B=$2.00, C=$5.00.

6276 Silkweed *Asclepias incarnata* If you like milkweed, you'll love silkweed—and the butterflies will too. Thick-stemmed 4' perennial with clusters of dusty pink flowers makes a great garden backdrop. Blooms from midsummer to early autumn and finishes with pods that split open to reveal the "silk." Also known as Swamp Milkweed: prefers moist locations. Plant in spring or fall. Prechill seed for 2 weeks; direct seed or transplant; surface sow. Zones 3-9. Seed organically grown. NEW! ① A=.1g, ~22 seeds, B=.4g, C=1.2g. 220 seeds/g.

6282 Red & Gold Hybrids Sneezeweed *Helenium autumnale* Also known as Sunny Bride. A rich chromatic scale of bronze, brown, crimson and yellow shades for an end-of-summer display. Single flowers resemble Coreopsis but have a large center "button" like coneflower atop 4' plants. Combine with asters and phlox for great late-season color. Not fussy, easy to grow, excellent for cutting. At its prime when most perennials have finished blooming. Generally a low germinator; needs 2-3 weeks. Zones 3-10. ③ A=.1g, ~500 seeds, B=.3g, C=.9g. 142,000 seeds/oz.

6296 Perennial Sweet Pea *Lathyrus latifolius* The traditional English cottage sweet pea, grown by Jefferson in 1771, thrives in cool climates, loves sun, climbs 6' and is useful as a screen. Comes in shades of rose, white and pink in big clusters. Good cutflowers. Soak seeds up to 24 hours before sowing outdoors in early spring. Can take 3-4 weeks to germinate. Zones 3-10. ③ A=1g, ~20 seeds, B=3g, C=12g, 600 seeds/oz.



6306 Double Choice Mix Sweet William *Dianthus barbatus* A fragrant self-sowing biennial in red, pink, white, lavender or mixed colors. Germinates in 7-14 days at 70°. May be started 2 mos. before setting outdoors, or sown where it will grow in late summer or fall. Requires full sun and good drainage, likes lime. 18". Zones 4-10. ③ A=.5g, ~475 seeds, B=7g, C=28g. 26,600 seeds/oz.

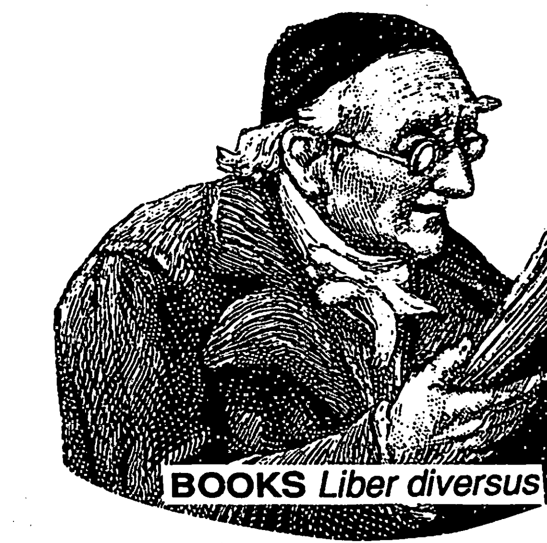
6316 Creeping Thyme *Thymus serpyllum* Also known as Mother-of-Thyme or Brotherwort (not to be confused with Motherwort!). Creeping sweet-scented ground cover with purple flowers good in rock gardens, between stepping stones, or on dry slopes. Likes good drainage, full sun and alkaline soil. Plants grow slowly from seed, may be started indoors 2 mos. before planting, or outside in early spring or fall where they will grow. Sow thickly, do not cover seeds. 2". Zones 3-10. ② A=.1g, ~800 seeds, B=1g, C=3g. 224,500 seeds/oz.

6326 Sightseeing Mix Veronica *V. spicata* Also known as Speedwell. A wonderful mix of pink, white and blue-violet flowers—glorious when they're all blooming together. Growing uniformly to 2-2½' with erect, pointed spikes, makes a great border, also a superb cutflower. Will bloom the first year if started early indoors. Zones 3-8. ③ A=.02g, ~400 seeds, B=.06, C=.18g. 225,000 seeds/oz.

6336 Wildflower Mix for the Northeast. A blend of 21 perennial and self-sowing annual species native to or naturalized in northeast US and Canada. Includes Dame's Rocket, Black-Eyed Susan, Shirley Poppy, Blazing Star and Bachelor's Button. Broadcast in spring or fall in a well-prepared weed-free seedbed in a sunny spot. Seed at a rate of 1 lb/4500 sq. ft. A=1.4g, ~3,000 seeds, B=7g, C=28g, D=1lb, $30.00, not listed on the grid form, see p. 3 for bulk ordering instructions. 60,000 seeds/oz.

Herb & Flower Botanical Index

Achillea millefolium 4990,6008
A. ptarmica 5705
Agastache fœniculum 4708
Ageratum houstonianum 5506-10
Alcea rosea 6140-52
Alchemilla mollis 4826
Allium schoenoprasum 4512
A. tuberosum 4576
Althaea officinalis 4866
Amaranthus caudatus 5218
A. gangeticus 6876
Amberboa moschata 5459
Ammobium alatum 5890
Anethum graveolens 4530-42
Anthriscus cerefolium 4506
Antirrhinum majus 5665,6884-6
Aquilegia caerulea 6042
A. vulgaris 6048
Artemesia annua 5884
A. vulgaris 4896
Asarina scandens 5522
Asclepias incarnata 6276
A. tuberosa 6034
Aster spp. 6018
Astragalus membranaceus 4714
Begonia tuberhybrida 5518
Borago officinalis 4746
Brassica oleracea 5156-60,5566-68
Briza maxima 5964
Bupleurum griffithii 5720
Calendula officinalis 5078-88
Callistephis chinensis 5024-44,5514
Campanula carpatica 6028
Catharanthus rosea 5682
Celosia cristata 5130,5726-32
Centaurea americana 5068
C. cyanus 5052-60
C. montana 6892
Cerinthe major 5520
Chenopodium botrys 4624
Chrysanthemum x superbum 6272
Clarkia amoena 5170
C. unguiculata 5120
Cleome hasslerana 5126-28
Cnicus benedictus 4738
Consolida orientalis 5174-94
C. regalis 5198
Coreopsis grandiflora 6068
C. tinctoria 5092
Coriandrum sativum 4518
Cosmos bipinnatus 5136-40,5552
C. sulphureus 5134
Cynoglossum amabile 5110
Dahlia x hybrida 5558
Datura inoxia 5622-3
Delphinium x cultorum 6098
D. x elatum 6080-94
Dianthus barbatus 6306
D. caryophyllus 5102
D. chinensis 5108
D. deltoides 6196
Digitalis purpurea 6110
Dracocephalum moldavica 5147
Echinacea purpurea 4776-7
E. angustifolia 4774
Eschscholzia californica 5352
Eupatorium perfoliatum 4742
E. purpureum 6266
Euphorbia marginata 5148
Fœniculum vulgare 4556-66
Gaillardia grandiflora 6130
Gazania rigens 5573
G. splendens 5572
Glycyrrhiza glabra 4860
Gomphrena globosa 5742-54
Goniolimon tataricum 5846
Gypsophila elegans 5018
G. paniculata 6020
Helenium autumnale 6282
Helianthus annuus 5400-32,5668-9
H. debilis 5436
Helichrysum bracteatum 5864-76
H. cassianum 5860
Heliotropium arborescens 5576
Helipterum roseum 5710
Hibiscus trionum 5570
Hordeum vulgare 5910
Huechera sanguinea 6062-64
Hypericum perforatum 4980
Hyssopus officinalis 4806
Iberis odorata 5098
Impatiens balsamina 5066
I. hawkeri 5580
I. wallerana 5582
Inula helenium 4782
Ipomoea nil 5270,5276
I. purpurea 5624
I. tricolor 5272
Lagurus ovatus 5950
Lathyrus latifolius 6296
L. odoratus 5440-57
Lavandula angustifolia 4836
Lavatera trimestris 5202-10
Leonurus cardiaca 4884
Levisticum officinale 4592
Liatris spicata 5716
Limonium sinuatum 5816-42
Linaria maroccana 5212
Linum grandiflorum 5150
L. perenne subsp. lewisii 6120
Lobelia erinus 5214
Lobularia maritima 5004-08
Lunaria annua 5762
Lupinus polyphyllus 6186
Lychnis chalcedonica 6204
M. sylvestris 5224
Marrubium vulgare 4796
Matricaria recutita 4766
Matthiola incana 5374
Melissa officinalis 4846
Mentha pulegium 4924
M. spicata 4632
Mirabilis jalapa 5164
Moluccella laevis 5714
Monarda citriodora 4854
M. didyama 6022
M. fistulosa 4734
Nasturtium officinale 4694
Nepeta cataria 4756
Nicotiana sylvestris 5628
Nigella damascena 5782
N. hispanica 5790
N. orientalis 5786
Ocimum basilicum 4414-62
O. sanctum 4728
Origanum heracleoticum 4646
O. majorana 4616
Papaver nudicaule 6244
P. orientale 6254
P. spp. 5318-46
Perilla frutescens 4678-80
Petunia x hybrida 5638-44
Phlox drummondii 5312
P. paniculata 6234
Physalis alkekengi 5736
Pimpinella anisum 4406
Portulaca grandiflora 5652-56
Primula vulgaris 6262
Psyllostachys suworowii 5852
Reseda odorata 5262
Rosmarinus officinalis 4656
Rudbeckia hirta 5072
R. fulgida 6054
Ruta graveolens 4936
Salpiglossis sinuata 5302
Salvia officinalis 4664-65
S. patens 5362
S. splendens 5662
S. viridis 5804
Satureja hortensis 4672
S. montana 4674
Scabiosa atropurpurea 5316
S. stellata 5810
Schizanthus pinnatus 5365
Scuttelaria baicalensis 4962
S. lateriflora 4964
Setaria macrocheata 5958
Silene dioica 6038
Silybum marianum 4872
Sorghum nigrum 5972
S. vulgare 5930
Spilanthes oleracea 4972
Tagetes erecta 5252,5610-18
T. patula 5228-40,5606
T. tenuifolia pumila 5244-48,5601
Tanacetum parthenium 4786
Thymus serpyllum 6316
T. vulgaris 4686
Tithonia rotundifolia 5256-58
Trachymene coerulea 5144
Triticum spelta 5982
Tropaeolum majus 5280-96
T. minus 5292,5625
T. peregrinum 5094
Urtica dioica 4908
Valeriana officinalis 4984
Venidium fastuosum 5460-1
Verbascum thapsus 4900
Verbena bonariensis 5462
V. hastata 4986
V. x hybrida 5672-76
Veronica spicata 6326
Viola tricolor 6170
V. x wittrockiana 5306,5632
Xeranthemum annuum 5770
Zea mays 5940
Zinnia elegans 5468-74,5482-93,5690
Z. haageana 5478



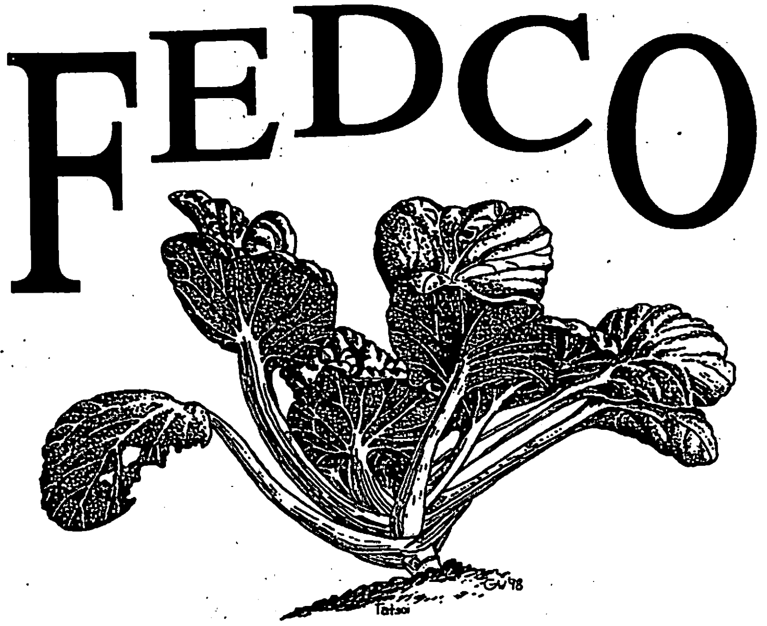
BOOKS *Liber diversus*

Looking for a title we have listed in recent years but not in this catalog? Occasionally we have stray copies left which we will sell at a discount. Call us with specific title requests.

6500-6501 T-Shirts Our design features Gabriel Willow's tatsoi, dark green with yellow-green stalks on a sage green background. Printed by Liberty Graphics of Liberty, ME. 100% cotton short- and long-sleeved beefy T's. Sizes are medium (38-40), large (42-44) and extra-large (46-48). $13.00 short-sleeved; $17.00 long-sleeved.

6503 ***All About Weeds*** by Edwin Rollin Spencer, 331 pages, 5½x8½, softcover. In the Hollywood comedies of the thirties, Franklin Pangborne often played a fussy prim middle-management type, much put upon by the antics of the comic heroes, but with a certain steely determination to have things his way. Pangborne's character has seemingly been resurrected in Spencer's botanical writings. With the able assistance of Miss Bergdolt, the illustrating schoolteacher from Illinois, he has written one of the "very few weed books that are of any use to the layman." A book that "any one who becomes interested in a weed...may, by turning the pages..., learn the name of that weed, something interesting about it, and, if it is a bad one, how to get rid of it." About 70 different species are covered, organized by grasslike or not and indexed according to habitat and season. A technical botanical description follows a brief disquisition detailing the appearance, habitat and some history of each weed with methods of eradication. This gives free rein to Spencer's engaging style: About Pennsylvania Smartweed, *Polygonum pennsylvanicum*, "This is one of the smartweeds without the smart." Or Chickweed, *Stellaria media*, "One of the meanest of the lawn weeds....It ought to be called 'lawn whoosh' or something like that, but it is not." Miss Bergdolt's illustrations are excellent, the text is informative and the style wonderful. NEW! $11.00

6504 ***From Asparagus to Zucchini: A Guide to Farm-Fresh Seasonal Produce*** Published by the Madison Area Community Supported Agriculture Coalition, 195 pages, 8½x11, spiralbound. A cookbook redolent with the flavor of the Community Supported Agricultural movement which spawned it. Designed to introduce their CSAs to the Madison community and beyond, it emphasizes locally produced food and seasonally appropriate menus. 46 profiles of vegetables and herbs include history (the startling news that kohlrabi appeared suddenly and without explanation in Europe in the middle of the 16th century), cooking and storage tips, and pleasing recipes from local farms and interesting cookbooks. Seasonal recipes use combinations of vegetables one might receive from one's CSA at each time of the year. A chapter on home preservation encourages folks to eat locally beyond the growing season. Profiles of 17 member farms, plus 11 supportive restaurants and stores and a list of 10 Dane County farmers' markets bring the Madison area that much closer. The publishers have ensured that, unlike the kohlrabi in Europe, CSA will not have appeared suddenly and without explanation in Wisconsin in the 20th century! $18.50



Tatsoi-design T-shirt by Gabriel Willow

6506 ***The Biotech Century*** by Jeremy Rifkin, 272 pages, 6x9 softcover. "'And this,' said the Director, opening the door, 'is the Fertilizing Room.' Bent over their instruments, three hundred Fertilizers were plunged in the scarcely breathing silence...of absorbed concentration." When Aldous Huxley wrote *Brave New World* (1932) he projected his utopia 600 years into the future. Barely sixty-odd years later, as Rifkin makes clear, *Brave New World* has arrived. As the biotechnology and computer revolutions fuse into a single technological and economic juggernaut, the pace of change continues to accelerate. Rifkin explores the implications of these changes, not just for agriculture, but for all of life. For we are all of us guinea pigs in the "most radical experiment on the Earth's life forms and ecosystems in history." Not a polemic, Rifkin shares more information than opinions, so that we can all have an informed public discussion about where we are headed before a few powerful corporations present us with a *fait accompli.* NEW! $13.00

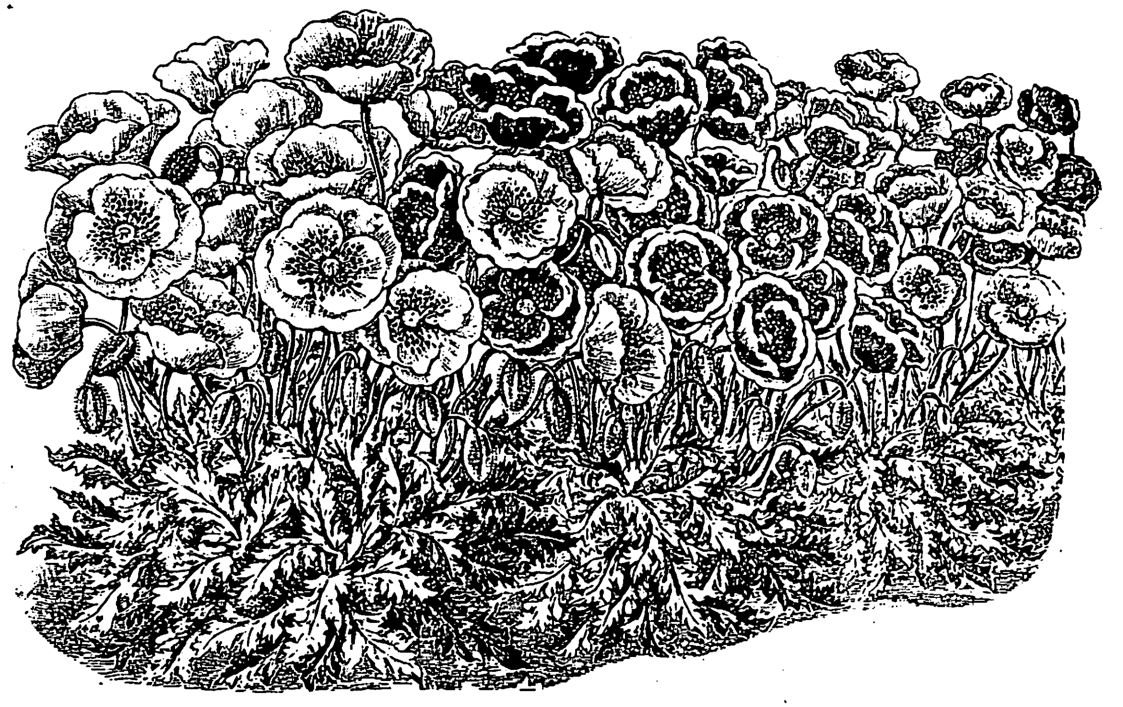
6508 ***A Biodynamic Farm*** by Hugh Lovel, 215 pages, 6x9, softcover. *Not available in 2000, we hope to have back in 2001.*

6512 ***Botany for Gardeners: an Introduction and Guide*** by Brian Capon, 220 pages, 6x9, softcover. If they had given me this book in high school I would have liked and understood biology. Capon demystifies each technical term he introduces by recounting its often humble derivations. It was news to me that the word chromosomes means "colored bodies" because they take stain so readily. Less intimidated by chromosomes, I now understand meiosis and mitosis, and so could you. By grounding the details in familiar plants, Capon brings clarity to plant form and the processes of growth. His instructive line drawings and color photos help, too. My favorites are his magnified cross sections of stained cells that make plants almost as beautiful and lovable at the microscopic level as they are in the garden. $18.00

6514 ***Building Soils for Better Crops: Organic Matter Management*** by Fred Magdoff, 176 pages, 5½x8, softcover. "If you follow practices that build up and maintain good levels of soil organic matter, you will find it easier to grow healthy and high-yielding crops." It couldn't be simpler. Organic matter: what is it, how do we get it, why do we need it? Topics covered in a plain readable style with information useful for both the neophyte and the experienced grower who wants to improve her farm and crops. Every suggestion offered, and there are many good ones, is both general enough to be applied broadly and specific enough to help devise a management plan to suit one's own fields. A book for everyone, from home gardeners and conventional farmers to biodynamic and veganic growers. Another example of the great work being done by the folks at the Sustainable Agriculture Research and Education (SARE) Program. NEW! $10.00

6515 ***Caring for Perennials: What to Do and When to Do it*** by Janet Macunovich, 191 pages, 8½x11, softcover. You can accomplish a lot in 15 minutes of focused work. You could, for example, successfully stake several drooping plants. Macunovich believes that if you follow her system, an average of 15 minutes per week will be sufficient to maintain a 10x10' perennial garden. She knows we don't have the time to do everything so she stresses prioritizing what needs to be done to keep the garden going. Her directions are clear enough to instruct beginners, yet creative enough to interest even experienced perennial gardeners. Using her own detailed 12-year records and working one simple bed with 36 cultivars, she takes you through a gardening year telling what she did to keep the bed beautiful, how, when and why and illustrates with color photos and instructive line drawings. Chapters on pruning; edging and weeding; dividing and mulching; and watering, fertilizing, planting and staking provide more detailed information. Includes a useful table with month-by-month maintenance recommendations for 70 different perennials. Enjoy a beautiful perennial garden with much less work! $20.00

6516 ***A Celebration of Heirloom Vegetables: Growing and Cooking Old-time Varieties*** by Roger Yepsen, 192 pages, 10¼x10¼, hardcover. If you've just begun dabbling with heirloom vegetables, the 488-page Seed Savers Yearbook or William Woys Weaver (see #6579) might be a little intimidating. Yepsen's volume is a little more accessible, with brief variety descriptions, striking watercolor illustrations and engagingly simple recipes. Yepsen chose his 200 varieties wisely. Most are easily obtainable from your favorite seed catalogs (Fedco, alone, carries 61 of them). Try Boone's Carolina Roasted Hot Pepper Sauce, Pumpkin Whoopie Pies from Pennsylvania Dutch country, Arkansas Cushaw Pudding or simply wrap potatoes individually in aluminum foil and bake them over a charcoal fire. Note: Yepsen has also authored a book describing 90 apple varieties which is offered by Fedco Trees. NEW! $35.00



6518 *The Complete Book of Gourd Craft* by Ginger Summit and James Widess, 144 pages, 8¾x10½, hardcover. Browsing through this sumptuous full-color guide to decorating gourds is like taking a walk through a museum. It will leave you gasping with pleasure, laughing with delight and generally awestruck. Three hundred inspirational photographs of gourd artistry will help guide you through 22 projects. Employs 55 decorative techniques and materials including woodburning, carving, painting, staining, waxing, basketry, inlay, weaving, decoupage, attaching pieces, making handles, lids and more. Plenty of how-to photographs and detailed easy-to-follow instructions. For beginner and experienced gourders, includes horticultural basics; cleaning, cutting and finishing tips; seed and supply sources. $27.00

6520 *The Complete Medicinal Herbal: A Practical Guide to the Healing Properties of Herbs* by Penelope Ody, 192 pages, 8x11¾, hardcover. As informative as it is beautiful, this easily accessible and useful reference is also a visual feast. It will invite you to linger for long hours with its extraordinary photographs or provide you with a rapid reference to practical details such as where to find the flavonoids in burdock. An A-to-Z of over 120 herbs with detailed photographs of the parts used medicinally, descriptions of traditional uses, active ingredients, therapeutic principles, proper preparations and dosages offers the most graphic herbal instruction course I've ever seen. Not your usual plant drawings here: You'll see close-up photos of the active parts—be they seed, root, leaf or bark—and dishes and jars of the tinctures, ointments, creams and oils in their true colors.

Your immune system need strengthening? A reference section arranged by ailments and sprinkled with case histories leads you to two possible remedies (astragalus and echinacea), with their actions, suggested uses and dosages and proper precautions. Why do the Chinese use schizandra in the spring? What was Gandhi's opinion about flax seed? Why did overindulgent Romans eat raw cabbage? From the fabulously illustrated first chapter which "looks at the major herbal systems in different parts of the world throughout the ages," to the detailed reference materials in the last chapter, this book will satisfy and delight as it instructs. $30.00

6530 *Digging Deeper: Integrating Youth Gardens into Schools and Communities* by Joseph Kiefer and Martin Kemple, 147 pages, 8¼x11, softcover. Can gardening in school lead to retooling a whole elementary school's curriculum to emphasize cooperation and interconnectedness? Maybe so! *Digging Deeper* both details the means for this change and documents that it is starting to happen around the country. Ready-made for educators to plug into their teaching curriculum, it includes lots of hands-on activities and sample schedules, along with evaluation and assessment tools. In addition to teaching the intrinsic joys of gardening and valuable knowledge of how to grow and market food, the program outlined in *Digging Deeper* leads irresistably to an ecological perspective. Are we training our children for the needs of global capitalism or are we teaching values of respecting the earth both locally and globally? Here's a regenerative ecological model that teaches skills of interdependence, cooperation, and integration. Big ideas underpin this very practical how-to-start-a-garden-in-school manual. Share this book with your favorite teacher and help inspire the next generation to begin to heal the Earth. NEW! $20.00

6542 *Field Guide to the Grasses, Sedges and Rushes of the United States* by Edward Knobel, 83 pages, 5½x8½, softcover. "A child said, What is the grass? fetching it to me with full hands; How could I answer the child? . . . . I do not know what it is any more than he." (Walt Whitman, *Song of Myself*) Had he this book, he could, at least, have answered, "What is this grass?" Alas, the guide was not published until 1899. The book is divided into the classes of its title and organized by the complexity of the ear, the flowering part of the culm. As you lean and loaf at your ease, observing a spear of summer grass, pick up this handy guide; observing the stem and ear, use the key to find the illustration and description. The scientific names have been updated to current standards and the index lists both genus and common names. NEW! $4.00

6544 *The Flower Farmer: An Organic Grower's Guide to Raising and Selling Cut Flowers* by Lynn Byczynski, 207 pages, 8x11, softcover. I expected a book by the publisher and editor of the highly informative *Growing for Market* newsletter to bloom with marketing insights, and I wasn't disappointed. Byczynski, a professional flower grower, knows the flower industry well and has good advice about choosing and creating markets and setting prices. As a bonus, she includes profiles of thirteen growers from around the country, telling what they do and how they found their niches. But hers is much more than a marketing book. Her love of flowers comes through clearly, and her advocacy of organic practices, even though they don't bring any extra income in flower production, is refreshing. Although her cultural instructions are more than adequate, Byczyński rightfully calls her chapter on "Harvest and Post-harvest" the most important in the book. She asks us to "learn to think like a flower," sharing her tricks for choosing the right moment and techniques to harvest for maximum vase life. Now that I know the importance of sanitation in all my tools and receptacles, and have a better idea of the basics of design, my bouquets will last longer and give more pleasure. $24.50

6547 *The Fragrant Garden: A Book about Sweet Scented Flowers and Leaves* by Louise Beebe Wilder, 407 pages, 5½x8½, softcover. Who has not thrilled to that ecstatic first whiff of spring in the air? Who has not savored the rich redolence of freshly turned earth? Who has not been stirred by the fecundity of April's misting rains? "Fragrance speaks to many to whom colour and form say little and it can bring as irresistably as music emotions of all sort to the mind." Yet, laments Wilder, gardeners today seldom plan for fragrance, an omission which can be readily remedied by taking her garden tour through the seasons. Reprint of a 1932 classic originally published as *The Fragrant Path*. $9.00

6554 *Garden Flowers Coloring Book* by Stefen Bernath, 40 pages, 8¼x11, softcover. These 40 popular flowers, 37 of which are offered by Fedco, cover almost the entire spectrum of color. Dover book includes color plates on the cover to guide young illustrators. $3.00

6558 *Garden Flowers from Seed* by Christopher Lloyd and Graham Rice, 276 pages, 6x9¼, softcover. These two eminent British flower growers, alike in temperament but more than a generation apart, engage in spirited horticultural dialogue. At its snappiest, their repartee reminds me of the Tappet Brothers, Click and Clack on NPR's *Car Talk*. I thought such a volume and format would be hopelessly impractical, but, in fact their wit proved near irresistable; their humor carried me along and I learned a lot. The heart of the information is in the opinionated expert discussions of more than 240 genera, singling out favored and less-favored species and cultivars and praising or damning them. Lloyd and Rice don't mince words. For example, GR: "Some gardeners are remarkably careless about how exactly they sow their seeds. It's not surprising, then, that seed companies are pestered with phone calls from gardeners who insist that the seed is useless when in fact it's the sowing technique which is at fault, not the seed." Gee, I would love to say something like that in this catalog, but wouldn't dare! NEW! $23.00

6560 *The Garden Seed Inventory Fifth Edition* Published by the Seed Savers Exchange, 808 pages, 6x9, softcover. Suppose you just read an article about Cream of Saskatchewan watermelon and want to find a commercial source so you can try it. *The Garden Seed Inventory* is the place to look for Cream or 7,312 other non-hybrid vegetables offered by 255 mail order seed catalogs in the United States and Canada in 1998. It is a fast way to locate a new source if your favorite company has dropped a variety you love. Preservationists will be pleased that more than 2,000 new (mostly old) varieties have been returned to commerce since the last edition in 1994. 43 new seed companies started up and 32 disappeared from 1994-1998. The *Inventory* also traces preservation rates for each crop. For example, only 50 of the 152 cucumber varieties offered in 1981 are still available, but they were joined over the last 17 years by 74 new listings. NEW! $26.00

6561 *Genetically Engineered Food: Changing the Nature of Nature* by Martin Teitel and Kimberly A. Wilson, 144 pages, 5¼x8¼, softcover. What's not to like about genetic engineering? It alters food at the genetic level in ways that could never occur naturally. With our current knowledge we are unable predict what will happen when these new combinations of genes are released into the environment. Recent research is not encouraging. Recombinant bovine growth hormone has been found to have significant negative effects on the health of cows and of people consuming their milk. A Cornell study showed that pollen from corn bioengineered to resist corn borers was toxic to monarch butterfly larvae. Pollen from genetically engineered crops can spread to wild relatives, creating the possibility of superweeds. Allergens can be introduced into engineered food crops, leaving consumers (who lack the benefits of labeling laws) at risk. Recent studies suggest genetic engineering can cause unforeseen reductions in the nutritional value of crops, calling into question the doctrine of substantial equivalence, which our government has used to pass the buck on its oversight responsibilities. Then there are the social costs: farmers' right to save their own seed crops jeopardized and their independence compromised, alarming concentration of the seed industry into fewer and fewer hands, promotion of monocultures and sterile fields, privitization of research for the financial benefit of the few instead of for the social benefit of us all, and alarming possibilities of a trade war with Europe and Japan. Teitel and Wilson cite these objections and more in thorough detail. "It is not an accident," they conclude "that the altering of life at the genetic level is called 'engineering.' In the process of engineering, one begins with the end: a picture of the desired outcome. In fact, the engineering process starts with a design, is governed by...efficiency, and ends with the goal of production. Contrast this with...the ecological approach, which begins with discernment...is governed by...harmony, and has no end goal at all." NEW! $13.00

6562 *Genetic Engineering, Food and Our Environment* by Luke Anderson, 159 pages, 5x7, softcover. Makes the argument clearly, forcefully and objectively that genetic engineering is not just a bad idea or an assault on the "sanctity" of life but a dangerous experiment of unproven benefit, and of demonstrable harm, except to the short-term profits of a few companies. It has been unleashed without proper oversight by the agencies charged with protecting food safety and health, and even with their, perhaps illegal, collusion and assistance. Not all the news is gloom and doom; a tremendous resistance to genetically engineered foods and crops is growing in Europe and elsewhere. Perhaps we should all follow the lead of the woman cited in this book who sent Monsanto a bill for £6,418.82 for the trouble and expense she had to go through to find non-GE soy beans. MP Allen Simpson spoke out in March about Monsanto, "The company has manipulated the rules of the vetting agencies in a way that is technically brilliant, but ethically corrupt and degrading to humanity." Austria and Luxembourg have banned Novartis's herbicide-resistant GE corn and France is following suit. The fight is far from over; as public opinion mobilizes against genetic engineering, a new public relations campaign will be launched to attempt to show that "there is no risk inherent in the technology itself." This book provides resounding evidence that "it ain't necessarily so." NEW! $8.00

6572 *Great Garden Formulas* edited by Joan Benjamin and Deborah L. Martin, 342 pages, 8x9¾, hardcover. Many experienced gardeners have secret formulas for dealing with certain problems, mixtures they lovingly concoct to befuddle pests, stifle weeds, attract birds and butterflies, or soothe away the pain from a garden booboo. The Rodale folks have put together this smorgasbord of recipes which cover the whole gamut. Surround your cabbages with a ring of onion plants to discourage the cabbage looper, strew fresh-smelling dried herbs on your carpet to transform vacuuming from a chore into a fragrant pleasure, fix a fabulous fertilizer for your bulbs...its all here. A sort of gardener's version of *Hints from Heloise*: soothe your pet's flea-bitten skin (from Deb Soule), dress up your ice cubes with flower blossoms, make a mighty-milk tomato blight cure, and hundreds more. NEW! $28.00

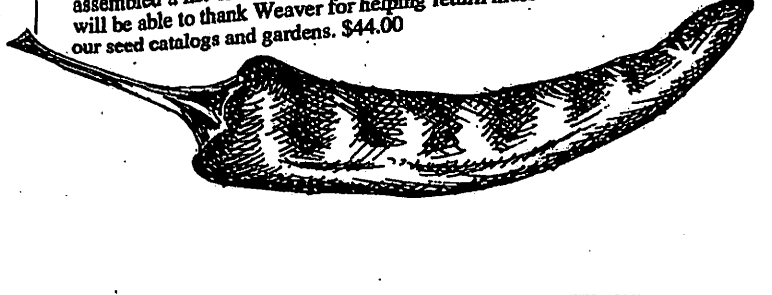
6573 *Growing Great Garlic* by Ron L. Engeland, 213 pages, 6x9, softcover. Garlic is the world's second most important allium crop, behind onions. If garlic is your passion, or even just your avocation, you'll enjoy this book. Engeland, an expert who successfully grows and sells over 100 strains and even markets a paper he makes from the discarded bulb wrappers, has written the definitive guide to growing garlic. He devotes thirty pages to varietal differences, adds a fascinating chapter on history, and provides in-depth cultural information on growing, harvesting, storing and marketing garlic. $15.00.

6575 *Growing Herbs and Vegetables from Seed to Harvest* by Terry and Mark Silber, 266 pages, 8x11, softcover. This is the Silbers third book, a compendium of their 25 years experience growing a wide range of plant species at Hedgehog Hill Farm in Sumner, ME. They begin with an exceptional section on where to find seeds and plants and how to evaluate suppliers. I agree wholeheartedly with their advice, and hope we measure up. They make a compelling case for interplanting herbs, flowers and vegetables into "one large tapestry of color" so as to make all of our garden spaces "as beautiful, as healthy and as informative as possible." As always, the Silbers bring to their work extraordinary record-keeping skills, a keen sense of design, refreshing lucidity, and their extensive teaching experience. Some of the information in their extraordinary tables I had never before seen in print. Where else will you find extensive information on saving herb seeds, including expected seed longevity? The charts for indoor seeding of herbs and vegetables are equally impressive. We are blessed to have such skilled garden writers in Maine. NEW! $35.00

6576 *Handcart Handbook*, by David Tresemer, 45 pages, 5½x8½, softcover. During the Great Leap Forward, the Chinese moved a river valley using only handcarts. Inspired by this, and his determination to rely on human power alone, Tresemer designed a two-wheeled cart and then modified it for an amazing variety of uses: laying row cover, rolling out barbed wire, lifting and hauling rocks, sledding loads over snow. Contains a history of the handcart, along with the plans for building the cart and making the modifications. Also includes suggestions for improving Garden Way-style carts. See also *The Sycthe Book* (#6665) for further appreciation of Tresemer's style and dedication to human-powered tools. NEW! $4.00

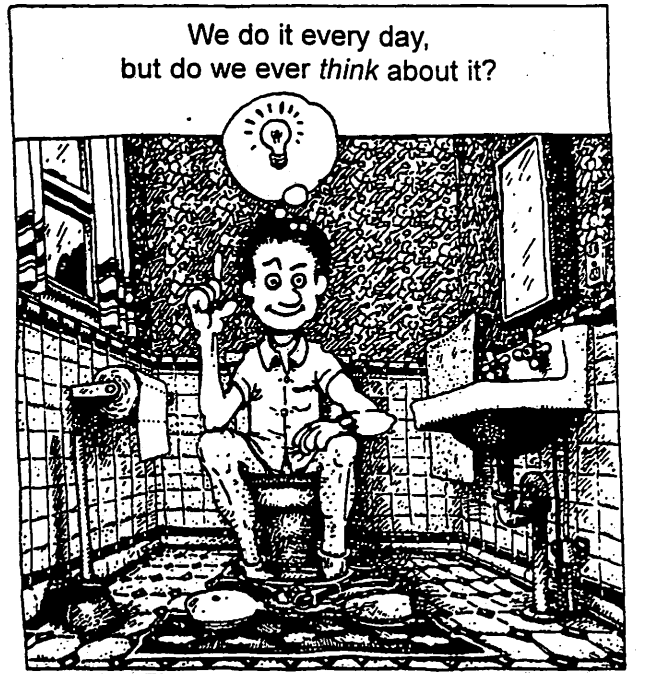
6578 *100 Heirloom Tomatoes for the American Garden* by Carolyn J. Male, 246 pages, 5½x10, softcover. Sports fans are familiar with lists ranking the hundred best ballplayers. Now Male has extended the concept to edibles. Such lists are bound to provoke controversies among aficionadoes, and that's half the fun. No one can gainsay Male's expertise in the heirloom tomato field. Over the past decade, she's grown and evaluated more than 1,000 of them and offered hundreds in the Seed Savers Exchange winter yearbooks. But how can she leave Pruden's Purple and Goldie off her list? She could similarly razz us for carrying only six of her chosen hundred. The controversy is fun, but the real benefit is the education. Sure, you've heard of Brandywine, and maybe tried it. But have you heard of Gold Ball, a 4-6 oz. yellow tomato introduced by Livingston, perhaps the greatest 19th century tomato breeder? Male can get you acquainted with dozens of deserving old varieties. Each of her hundred gets a page of description and a wonderful full-page color picture. Years ago, basketball great Bill Russell played to many empty seats in the Boston Garden, just as the great Brandywine was relegated to a few obscure collections. Hopefully Male can continue to do for heirloom tomatoes what Magic Johnson and Larry Bird did for the game of basketball, popularize it until its benefits are widely appreciated. Unless you're lucky enough to happen upon some old film you won't ever be able to see Magic, Bird or Russell play again. But you can grow and taste Gold Ball, Brandywine, and Druzba still, thanks in large part to Male. NEW! $18.00

6579 *Heirloom Vegetable Gardening: A Master Gardener's Guide to Planting, Seed Saving and Cultural History* by William Woys Weaver, 439 pages, 7½x9½, hardcover. Whatever else he accomplishes, William Woys Weaver has justified his existence with this extraordinary life work. Weaver has lived the historical gardener's ultimate fantasy, poring through hundreds of gardening classics, seed catalogs and cookbooks assembling the definitive histories of some of our most revered heirloom varieties. His research must have taken many years and its value is inestimable. Sure, I have a few quibbles. Weaver is a bit of a snob about the sanctity of the truest, oldest varieties. We *welcome* improvements in the original strains, though wishing, like Weaver, that the nomenclature weren't so tangled and the commercial aliases so prevalent. I would love to see a sequel volume focusing on more of the varieties developed during the Golden Age of classical plant breeding from 1870-1930. Then, too, Weaver is a tad harsh in calling modern sweet corns "sugar enhanced Coca-Cola corns." In my 1998 trial, Stowell's Evergreen, perhaps the oldest surviving sweet corn in commerce, compared very poorly with 1970s classic Silver Queen, by no means the sweetest of modern hybrids. I respect the old, but also believe older is not necessarily better. Those caveats aside, no serious seed saver or garden historian will want to be without Weaver's volume. From it we assembled a list of more than 65 old varieties to find for our trials. Soon we will be able to thank Weaver for helping return more of the best of the old to our seed catalogs and gardens. $44.00



6585 *The Homebrewer's Garden: how to easily grow. prepare, and use your own hops, malts, brewing herbs* by Joe Fisher & Dennis Fisher, 187 pages, 6x9, softcover. Proust said, "We are all of us obliged, if we are to make reality endurable, to nurse a few little follies in ourselves." What folly (by which, of course, we mean private pleasure not foolishness) could be more enjoyable and yet practical than homebrewing? After one has mastered the basics of homebrewing and wants to go beyond store-bought ingredients, *The Homebrewer's Garden* can show the way, providing an informative and well-organized guide to the brewer's garden. Features 20 hops varieties and their uses: how to cultivate, harvest and dry them. The herbs, plants, and fruits used to flavor beers beyond hops and malt. Grains, from barley, wheat and oats to quinoa and amaranth, with cultivation, harvesting and malting techniques. Recipes for 27 brews from fresh hop ale to dandelion stout. Cultivate and bottle your folly. NEW! $15.00

6588 *Hort Ideas* Published monthly by Greg and Pat Williams. An invaluable newsletter full of intriguing summaries of the latest research on a wide variety of horticultural topics including trees, shrubs, vegetables, flowers and horticultural products and accessories. For three consecutive months this summer the lead story covered important topics on the gene giants, biotechnology and Terminator/Traitor technology. We discovered many of the books in this section through reading reviews in *Hort Ideas*. $20.00


We do it every day,
but do we ever *think* about it?

From ***The Humanure Handbook*** by Joseph Jenkins.

6594 *The Humanure Handbook: A Guide to Composting Human Manure* 2nd edition, by Joseph Jenkins, 305 pages, 7¼x9, softcover. In the immortal opening words from his first edition: "The world is divided into two categories of people: those who shit in the drinking water and those who don't. We in the Western world are in the former class...After polluting the water with our body's digestive system byproducts, we flush the once pure but now polluted water 'away.' Away to where? Good question." More people were willing to ponder the answer than Jenkins dreamed when he first self-published *Humanure*. He had assumed a printing of 250 would suffice. Instead, Fedco, alone, sold more than 200 out of a total run of more than 10,000. Jenkins has greatly revised and enlarged his classic in the 2nd edition. The humor survives in the text and in a new batch of cartoons, but he has also increased his scientific documentation, bolstered his composting instructions with more illustrations and added a valuable glossary along with composting toilet and greywater system regulations and oversight agencies for all fifty states. Most of us waste nearly a thousand pounds of humanure every year, deposited in sewers and septic systems throughout the land. What does that have to do with the state of our agriculture? Everything. Americans, according to Jenkins, squander nearly 250 million tons of solid waste each year. Meanwhile, global consumption of artificial fertilizers increased tenfold between 1950 and 1990. The charts and graphs in his first two chapters make the inescapable connections. Nevertheless, many of us will still be horrified that Jenkins advocates the use of humanure as a fertilizer. Why are we Westerners so fecophobic? Jenkins is not shy about probing our psychological hangups which ultimately he ascribes to "worms and disease"! Neither is he afraid to address the scientific basis for our qualms nor to advocate solutions which he believes can overcome those legitimate fears. The answer, says Jenkins, is to use low-tech sawdust toilets and to thermophilically compost our refuse into rich pathogen-free humus for our gardens. And he goes into the details about how to do it, based on his own 20 years of experience. $25.00

6602 *Identifying Diseases of Vegetables* by A.A. McNab, A.F. Sherf, and K.K. Springer, 62 pages, 8½x11, spiralbound softcover, University of Pennsylvania. Was that hideous sunken black spot near the stem of your tomato caused by *Alternaria solani* or by *Colletotrichum coccodes*? Excellent photographs facilitate accurate disease identification. Includes all the popular vegetables and all the common diseases which affect them. $16.00

6610 *The Insect Workbook* by the Entomological Society of America, 80 pages, 8½x11, softcover. Revised edition of this Fedco family staple formerly entitled *Coloring Fun with Insects*. We sold over 700 copies of the first edition. Forty drawings of common insects for coloring, with non-pejorative information about each insect's natural history. Gives elementary-age kids a chance to have fun while learning some basic entomology, and raises everyone's consciousness about insects. Now includes step-by-step instructions which enable kids to conduct their own field studies as well as build pit traps and ant farms. $6.00

6616 *Keeping Food Fresh: Old World Techniques and Recipes* by the Gardeners and Farmers of Terre Vivante, 197 pages, 6x9, softcover. Nikos fears that her grandchildren won't ever enjoy fresh cider. By then, the food industry's hysteria to protect us from every microorganism (and to eliminate small local competitors), will have turned cider into a contraband substance and replaced it with pasteurized apple juice. The old-fashioned recipes in *Keeping Food Fresh*, submitted by readers of a French organic gardening magazine, are like cider: they use natural microorganisms rather than destroying them. Freezing and canning—adequately covered elsewhere—are not amongst the methods of root-cellaring, drying, lactic fermentation, and preservation in oil, in vinegar, in alcohol, with salt and with sugar. Each recipe or method is explained simply and clearly as if your grandmother or neighbor were showing you how to do it. Lactic fermentation, mostly known to us through sauerkraut, is applied to diverse vegetables. Vinegar preserves a wondrous array including brussels sprouts, nasturtium seeds, radishes and grapes. Dried tomato balls fascinated us, as did rhubarb syrup. Chutneys ketchups, piccalillis, stocks, soups, fruit paste, jellies and jams are covered in highly adaptable recipes. From the foreward by Eliot Coleman to the chart of which methods apply to which foods, an intriguing and useful book. NEW! $17.00

6620 *Managing Cover Crops Profitably* 2nd edition, published by the Sustainable Agriculture Network, 212 pages, 9x7½, softcover. An expanded and much-improved reissue, using farmers' and field researchers' results from across the country. Covers 19 different crops detailing benefits, management, and suggested cultivars with additional chapters on building soil fertility, recommended rotations and cover crop use in pest management. A series of excellent charts organize the information in useful and convenient form. As with other SAN books much of the information comes from the experience of real farmers and real farms, not the lab of some chemical company. As the introduction says, "Think of this book as a tool chest, not a cookbook." No one answer to fit all problems but a lot to work with. $19.00

6632 *The New Seed Starters Handbook* by Nancy Bubel, 385 pages, 6¼x9, softcover. Revised edition of a gardening classic by a 30-year gardening veteran. If you start your own seeds indoors, you'll find many practical suggestions. Includes new sections on raising garden flowers, wildflowers, and trees and shrubs from seed. $16.00

6635 *The Northeast Cover Crop Handbook* by Marianne Sarrantonio, 118 pages, 8½x11, spiral-bound softcover. From small family gardens to large farms, covercropping is the keystone of sustainable agriculture. Cover crops restore depleted soils and maintain and improve soil fertility and tilth. *The Northeast Cover Crop Handbook* is the best source of information I have found on cover crops and their uses. This workbook, written for growing conditions in the Northeast, is designed to help farmers find the best crops to meet their needs. Learn which crop is optimal for which application, how to judge the effects of nitrogen from cover crops, and how to solve problems when they arise. Use the appendix to find planting information, expected yields of organic matter and nitrogen, and problems to watch out for. A most useful guide and resource. $14.00

6637 *One Good Apple: Growing Our Food for the Sake of the Earth* by Catherine Paladino, 48 pages, 9¼x10¼, hardcover. In the spirit of Rachel Carson, to whom Paladino dedicates her work, comes this photo essay appropriate for both children and adults. Paladino examines those shiny waxed supermarket apples as the paradigm for our present food system, in the end contrasting them with the incredible variety of apples in John Bunker's diversity display at the Common Ground Fair. She demonstrates her knack for explaining sophisticated scientific concepts to children without becoming esoteric, talking down, or lapsing into heavy-handed preachiness. Her message is scary, as it should be, yet uplifting. Throughout, the focus is on kids, the world they are inheriting, and how they can make it better. I found many familiar images, for Paladino has photographs of Roberta Bailey's tomato collection and beautiful red cabbages, the Bonsall family and apprentice shelling Maestro peas and turning compost, organic farmer Jason Kafka's beloved garlic, and the Medomak Valley High School Heirloom Seed Project's fair display. NEW! $15.00

> "I appreciate that your catalog is on newsprint without colored inks and I hope you will choose to continue printing this way. I hate slick color catalogues—non-recyclable, toxic to burn 'em...true junk mail!"

6639 *The Organic Gardener's Handbook of Natural Insect and Disease Control* edited by B. Ellis and F. Bradley, 534 pages, 7½x9¾, softcover. Plants attacked by diseases or insects can reveal valuable information about soil health and gardening techniques. Use this complete reference, including a 250-page alphabetical guide to identification and solution of plant problems, 80 pages of full-color insect photos, and 140 pages on plant diseases and modern control strategies, to help you identify and successfully treat disease and insect problems in gardens, woods, orchards and flower beds. $18.00

664[illegible] *Plant Kingdoms: The Photographs of Charles Jones* 128 pages, 11¼x11½, hardcover. We are a practical sort at Fedco. We generally don't like coffee-table books and we haven't listed them in our catalog. Yet, every one of us who looked at these extraordinary photographs immediately wanted to offer this book. There is no text, except for a preface by Alice Waters and an introduction. Jones left no notes, diaries, memoirs or even surviving negatives explaining the reasons for his work. Around the turn of the century he made these starkly original gold-toned gelatin silver prints, which photographic collector Sean Sexton saved from extinction only by chance discovery in a London antique market in 1981, 22 years after Jones died. Jones did not photograph his subjects within nature. Instead he created beguiling studio portraits using close-up viewpoints, long exposure and spare composition, anticipating by decades the later achievements of the modernist masters. We love vegetables, fruits and flowers and when we saw these prints something resonated deep within our souls. Here is an aesthetic which transcends the practical. NEW! $25.00

6647 *Planting Noah's Garden: Further Adventures in Backyard Ecology* by Sara Stein, 448 pages, 7¼x9¼, hardcover. Kill your lawn, advises Sara Stein, and then tells you how. Why kill your lawn? Because it is monotonous. "What if everybody dressed the same?" asks Stein. "Why should yards wear uniforms?" Americans lavish more chemical fertilizers on their lawns and backyard gardens than our whole agricultural system uses on our farms. Such practices have unwittingly turned the suburban landscape into a barren ecosystem. So Stein and her husband Marty discovered quite by accident when they groomed their property in the customary manner only to find that songbirds fled and wildlife disappeared. Out of that experience Stein wrote her groundbreaking book *Noah's Garden* which struck a responsive chord among thousands of readers. In this, the sequel, Stein tells how to restore a rich diverse native ecosystem to your backyard. You may want to skim the rambling anecdotal yet inspiring first part to get right to the grubby guts of the work. Fortunately, Stein's 176-page how-to section is well-organized, thorough and detailed on everything from making scale drawings of your plot, to organizing group plant orders, to building small ponds and bogs to constructing birdhouses and wildlife habitats. $40.00

6648 *The Potato Field Manual* edited by A. Ulrich, G. Kleinschmidt and Sandvol, 72 pages, 3½x7, softcover. A handy little manual loaded with color photos. Covers nutrient deficiencies, a variety of diseases (virus, bacteria, nematodes, etc.), physiological disorders, chemical injuries and insect damage. A must for the serious potato farmer. $7.00

6651 *Rebirth of the Small Family Farm* by Bob and Bonnie Gregson, 64 pages, 8½x11, softcover. This is the book for small farmer wannabees. Without benefit of previous farming experience, the Gregsons made the transition in their mid-40s from the corporate management world to a small family CSA farm on an island off the coast of Washington. Eight years later, having achieved success after several false starts and failures, they were ready to tell their story. Tell they do, in a simple accessible practical manual rich with details of farm economics. This convincing case study argues that others willing to follow ten basic principles can replicate the Gregsons' success. Appendix includes the CSA share each subscriber received from them in 1995. $8.50

6656 *Root Cellaring*, 2nd edition, by Mike and Nancy Bubel, 297 pages, 6x9, softcover. According to the Bubels, a good root cellar provides a "direct, earthy and deeply satisfying connection between our summer efforts in the garden and our winter need for fresh wholesome food." If thoughts of crisp carrots in March set your mouth watering, let the Bubels take you on a well-illustrated tour of root cellar designs. They can also help with varietal selection, optimal storage conditions, and even recipes. Apparently the Bubels' theme struck a chord with those who wished to prepare for Y2K. We sold 112 copies last year, more than double previous years. $15.00

6665 *The Scythe Book* by David Tresemer, 128 pages, 5½x8½, softcover. In this information age, knowledge is disappearing. As power replaces intelligence, and "efficiency" substitutes for sound practice, the commonplace skills of yore are becoming uncommon and harder to learn. David Tresemer seeks to reverse that trend, offering not merely an instruction manual for the use of a tool (how to stand, how to mow, how to sharpen and care for your scythe), but an argument for the superiority of the scythe over mechanical mowing for small farmers and growers. Tresemer has done a lot of research into the history of the scythe and its usefulness and makes his case entertainingly and convincingly. Anyone who owns a scythe should read this book and anyone who reads it will want to use one. $14.50

6672 *Seed to Seed* by Suzanne Ashworth, 240 pages, 8½x11, softcover. Now considered the classic reference in the field with detailed instructions on seed saving techniques, including harvesting, drying, cleaning and storage, and proper isolation distances to maintain purity. Spectacular photographs by David Cavagnaro, many taken at the Seed Savers Exchange's lovely gardens at Heritage Farm, enhance Ashworth's text. This is the book our own seed growers use. $20.00

6684 *Sharing the Harvest: Community Supported Agriculture in America* by Elizabeth Henderson with the late Robyn Van En. Van En, co-founder of CSA in North America, and Henderson, a leading practitioner the past ten years, set out to revise *The Basic Formula to Create CSA*, the concept's organizing classic. Along the way, their project grew almost as exponentially as the number of practicing CSAs. After Van En's untimely death, Henderson vowed to carry on their work in Van En's memory. *Sharing*'s prose is mostly Henderson's but the spirit of Van En still shines through. At once, a how-to manual for creating and growing a CSA, an historical documentation of CSA's rapid spread, and a profound social, political, economic and spiritual statement, *Sharing* will be the touchstone for the next generation in the evolution of CSA, a vital tool for maintaining, focusing and accelerating its momentum. *Sharing* is a must for anyone now connected with CSA and anyone who might wish to be in the future. Should we have a core group and what should be its responsibility? Should we have a work requirement and what are the ramifications for our community? How shall we constitute and price our shares? What can we learn from the mistakes of CSAs that failed? How can we connect with the citizens of our nearest city? How might we cooperate with other CSAs in the area? Equally at home in front of a conference lectern or on a tractor seat, Henderson is the right person at the right time to address these issues, both from the practical and philosophical standpoint. She adroitly mixes organizing precepts with instructive histories, while avoiding the trap of limiting CSA to any single agricultural school or ideology. She places CSA in the context of related social movements and broad issues like preserving farmland, freeing land from ownership constraints, ensuring food security and sharing the benefits of healthy food with the economically disadvantaged. I have been privileged to be one of her editors, and treasure our special friendship which goes back nearly thirty years. $25.00

6688 *Specialty Cut Flowers* by Allan M. Armitage, 372 pages, 6x9¼, hardcover. Can justly be called the Bible of cutflower growers, aimed at state-of-the-art commercial production, but with plenty of basic information for the novice, too. Learn when to cut (what time of day and what stage of flower development), what conditions and temperatures produce optimal water quality, and which, if any, post-harvest treatment solutions to use. Tables for each flower give proper propagation and growing-on conditions, environmental factors, expected field and greenhouse performance, harvest times and post-harvest maintenance, recommended cultivars, and pests and diseases of which to be aware. Covers annuals, perennials, bulbous and woody plants. At the time of publication (1993) American per capita consumption of cutflowers ranked well below that of the Dutch, Swiss, West Germans and Japanese. Approximately 75% of all flowers purchased by Americans were overseas imports. The author hoped to help change that by extending flower use beyond anniversaries, holidays and special events into the everyday mainstream. I suspect new figures would show he's succeeding. NEW! $40.00

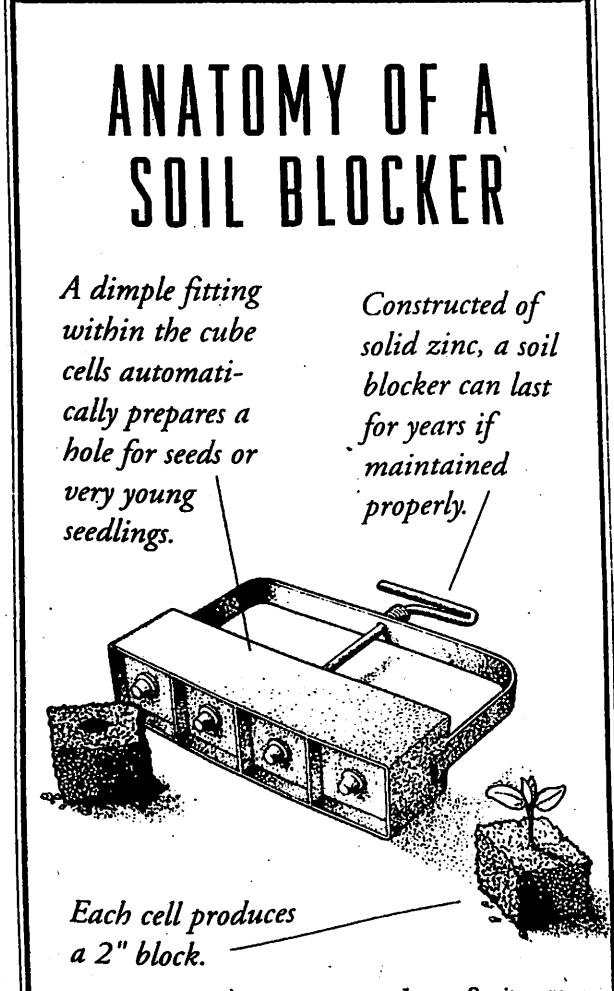
6690 *Stella★Natura: 2000 Kimberton Hills Biodynamic Agricultural Calendar* edited by Sherry Wildfeuer, published by The Bio-Dynamic Farming and Gardening Assn., 40 pages, 9x12 unopened. "Down-to-earth advice for gardening with cosmic rhythms." Contains lunar and astronomical charts correlated with planting data which many of our customers find valuable, as well as thought-provoking articles which make biodynamic rationales and practices more accessible. This year's theme is biodynamics and ecology, with essays on prairie restoration, flowforms and vortices, the four major principles of ecological agriculture, the proper feeding of fruit trees, changing our attitudes so that we might save the honeybee and more. $14.00

From ***Stella★Natura: 2000*** by Sherry Wildsteuer.

6691 *Straight-Ahead Organic* by Shepherd Ogden, 266 pages, 8x10, softcover. When I started gardening in 1973, my most important mentor was Big Sam Ogden and my most important reference was his classic *Step-by-Step Organic Vegetable Gardening*. My copy became dog-eared from making so many trips from the bookshelf to my garden. Now comes grandson Shepherd to fill Big Sam's enormous footsteps. As his grandfather did before him, Shepherd not only covers the nuts and bolts (and forks and spades) of gardening in a style most cogent, but also adroitly mixes in a strong organic philosophy. While the philosophic underpinnings are found throughout the book, they are most effectively distilled into a series of sidebars which delve into "The Patenting of Life," "A History of Captan," "The Science of the Marketplace," "Losing *Bt*," "Earthworms," and "Why I Hate Rototillers." An excellent section on crop rotation and another on seeds and seedlings enhance the presentation. Ogden's experience in the mail-order seed business (he founded Cook's Garden) enriches his vegetable growing profiles and enables him to recommend specific varieties with the voice of authority. NEW! $25.00

6692 *Sustainable Vegetable Production from Start-Up to Market* by Vernon P. Grubinger, 268 pages, 8½x11, softcover. "Vegetable farmers do much more than produce vegetables; they also manage money, people and natural resources. In fact, growing the crops is often the easy part...this book attempts to address the systems that comprise a vegetable farm." So begins Grubinger, Director of the Center for Sustainable Agriculture at the University of Vermont. With many books available for small-scale organic production and for large-scale chemical-intensive farming, Grubinger successfully targets the increasing number of growers who fall somewhere in between. You won't find out how to grow broccoli here (plenty of other books address that) but you will find an enterprise budget for growing fall broccoli and a profile of Rhode Island grower Skip Paul for whom fall broccoli is a crucial niche market. Seventeen other crops are covered in similar fashion, including raps by other successful growers concentrated in upstate New York and northern New England. The emphasis throughout is on systems and infrastructure including tillage equipment and field preparation, soil fertility management, composting and crop rotation, disease, weed, insect and wildlife management, irrigation and spraying systems, harvest and post-harvest handling, and marketing and farm business management. An absolutely essential book for any aspiring, beginning or fledgling commercial vegetable grower in the Northeast. NEW! $48.00

6693 *Sweet Potatoes for the Home Garden with Special Techniques for Northern Growers* by Ken Allan, 204 pages, 5½x8½, softcover. Sweet potatoes, like magnolias and mint juleps, more easily conjure images of pillared plantation houses and manicured fields of cotton than of pothole-pocked roads and blackfly-infested meadows. Yet, with a little care, sweet potatoes do quite well here and north to Canada, Allan's native land, where he began growing them 20 years ago. Allan combines the lessons he has learned with the experience of his 18 trial growers throughout Canada, from balmy Vancouver Island in the "moderate zone" to frigid Whitehorse, Yukon Territory, in the "impossible zone" where a greenhouse is a necessity. Covers everything from preparing seed beds to avoiding chilling injury—sweet potatoes require warm temperatures even for storage. Includes directions for propagating slips, grafting and breeding. $20.00


ANATOMY OF A SOIL BLOCKER
A dimple fitting within the cube cells automatically prepares a hole for seeds or very young seedlings.
Constructed of solid zinc, a soil blocker can last for years if maintained properly.
Each cell produces a 2" block.

From *The Tool Book* by William Bryant Logan. See item #9041.

6694 *The Tool Book* by William Bryant Logan, 302 pages, 8x12, hardcover. Is your father one of William Whyte's organization men? Is he baffled by your decision to farm? Buy him this book for Father's Day and he will wonder no more. The preface says that Smith & Hawken was founded for the purpose of providing Bulldog tools, England's best, for the practitioners of John Jeavons' bio-intensive gardening. Logan gives the game away with the title of his introduction: "The Love of Tools." And that's what this book is, a paean to the hand tool. Each section, introduced by a painterly photograph, begins with an essay about some aspect of gardening: digging, cultivating, propagating, planting, cutting, watering, composting, lawn care, holding and hauling, raking and sweeping, even clothing; a history of the tools, an anatomy of the tools and photographs and descriptions of them. Five pages on the shovel, its development, its uses and its many kinds; a two page history of cutting followed by 25 pages of hand trimmers, hedge shears, loppers, pruning shears, pole and pruning saws, axes, sickles and scythes. This book may be overkill, but what a way to go. It might be a guy thing, but I think tools are fascinating, to look at, to dream about, to use. Logan shows this as well as anyone I have ever read. A coffee-table book, but "Bulldog" quality. NEW! $25.00

6695 *Weeds, Control Without Poisons* by Charles Walters, 351 pages, 6x9, softcover. "Weeds are an index of what is wrong—and sometimes what is right—with the soil, or at least with the fertility program." Look around, walk the fields, listen to the weeds. Is your field full of bindweed and foxtail? Then the soil is probably compacted, has low fertility and doesn't drain well. Correct these problems and the weed problem will disappear. Do pigweed and lambsquarter come up each spring? Rejoice—your soil is in good shape—then do a little cultivating. Meet Walters' "cast of characters," 130 of the most troublesome weeds, each of which tells a story about your soil. Walter gives the botanical description, identifying characteristics, standard means of eradication and significance of each. With discussions of biochemistry, biodynamics, paramagnetism, radionics and dowsing, *Weeds, Control without Poisons* is chock full of nutty ideas, such as the weed pepper, a spray distillation of a collection of a broad spectrum of weeds to be applied to the weediest areas. Like the weed pepper, Walters' concoction is also a rich brew... of opinion and information. $25.00

6696 *The Winter Harvest Manual: Farming the Back Side of the Calendar* by Eliot Coleman, 56 pages, 8½x11, spiral-bound. The 44th parallel runs through Waterville, home of Fedco Seeds, and through Blue Hill, ME, site of Coleman's year-round vegetable plot. It continues across the Atlantic through Provence and Tuscany, not regions one would associate with Maine. Although we do not share their mild winters and balmy climate, we get as much daylight as they do. If vegetables will grow through the winter there, why not here? Well perhaps because the ground is usually frozen and covered with snow. Adopting a quote from Buckminster Fuller, "Don't fight forces, use them," Coleman asked himself, "What likes cold?" and found thirty vegetables which can be grown through the winter under row cover in hoop houses with no other intervention. In these few pages, Coleman describes his methods of growing, harvesting and marketing: his preferred varieties and planting dates; successes and failures: the few simple tools he uses; materials and methods of constructing hoop houses and beds; and as a clincher demonstrates that growing lettuce in the winter in Maine is much more energy-efficient than trucking it from California. Coleman packs more information into 56 short pages than most authors ever achieve in quadruple the space. Here is his third consecutive classic—clear, compact and elegant. We sold 287 copies last year—only Deb Soule's work has ever sold more in one year at Fedco. $15.00

6698 *A Woman's Book of Herbs* by Deb Soule, illustrated by Susan Szwed, 256 pages, 6x9, softcover. Previously entitled *The Roots of Healing*. Our relationship with the fairies at Avena Botanicals Herbal Apothecary, first kindled by the proximity of our booths at Common Ground Fair, has grown closer each year. We long awaited the publication of Deb's first book, and you've purchased more than 600 copies in the last five years. If ever words could match the sheer artistry and joy of her extraordinary Avena gardens, Deb's lyrical passages come close, singing with the wholeness of her calling. Whether you seek simple, clear directions for making tinctures, decoctions, flower essences, salves and other remedies, the historical perspective to appreciate the healing tradition of witchcraft, or the inspiration to help find your own healing path, Deb guides the way. Fearlessly she breaks new trails, exploring a variety of women's concerns, offering support for women recovering from sexual abuse, and information on lesbian health issues never before addressed in an herbal. A wise woman in the best sense of the tradition, Deb has combined her 20 years of experience in growing, gathering, preparing and using herbs with her exceptional teaching skills and her profound affirmations to produce an enduring work of depth and vision. Illustrator Sue Szwed's work has graced our catalog for a number of years. $15.00

DISCOUNTED SPECIALS

The descriptions explain our reasons for carrying and then dropping these cultivars. We know you love bargains and we hate to disappoint you. We run out of most discounted specials during our late January rush. Please order early.

6804 Maestro Pea (55 days) *Pisum sativum* The strain we received from our supplier in 1999 was not true-to-type, yielding blunt-podded peas on shorter than normal vines. If you were dissatisfied, we will send you a refund. We are offering our remaining stock at discounted prices. 182 lb. remain at 90%. We will reoffer when the proper strain is again available. B=2 oz, 80¢, C=½ lb, $2.50.

6808 Garden Baby Watermelon (78 days) *Citrullus lanatus* F-1 hybrid. Discontinued because our customers didn't take to this 7-8 lb. icebox watermelon. A good choice if you want to grow watermelon but are a little squeezed for space or short on frost-free days. Garden Baby features compact determinate vines and expeditious maturation. Lovely interiors with small seeds. We have more than a full year's supply at 93%. A=1g, $.50, ~29 seeds.

6820 Sunrise Cantaloupe (85 days) *Cucumis melo* F-1 hybrid. We have discontinued this tropical melon with subtle interplay of textures and colors because we like Sweetie #6 better and because too few tried Sunrise. Its exquisitely flavored aromatic orange flesh closest to the seed cavity dissolves to a band of yellow then green flesh of increasing toughness toward the rind. Makes a fine addition to fruit salad or a good breakfast treat. 84% germination. Plenty of seed left. A=1g, 50¢.

6832 Cucuzzi Gourd (65 days) *Lagenaria siceraria* We discontinued for lack of demand. Perhaps their vining habit is too rampant for most gardeners. When the fruits are still narrow and 8-16" long, they are decent zucchini substitutes with a stronger flavor. Left unpicked the fruits will grow up to 4' with curves on each end so they literally can be worn across your shoulders or used for a swing or two in the old ball game. About 1 lb. left; should last the season. 75% germination A=⅛oz, 50¢, ~40 seeds.

6833 Danvers Carrot (75 days) *Daucus carota* Open-pollinated. We've switched to organic seed (#2076) and have 11 lb. of commercial seed remaining at 72% germination. A=⅛oz, 50¢, B=2 oz, 80¢.

6834 Estelle Carrot (56 days) *D. c.* F-1 hybrid. Estelle was intended as a processing carrot. It proved unsuitable for machine harvesting, but superb as a full-season home-garden carrot. Unfortunately, the grower was not interested in the home garden market and ceased production. This is your last chance to enjoy its earliness, good interior color and sweet full-bodied Nantes flavor. We have 350 packets at 75% germination. A=1g, 50¢.

6838 Andover Parsnip (120 days) *Pastinaca sativa* If you have good soil tilth you'll appreciate Andover, a refined tapered cylindrical root which will grow up to 14" long. Discontinued because of crop failure. We intend to carry again. We have 2 lb. of seed which we have made into packets. The germination was 80% as of October. A=1/8oz, 50¢.

6842 Mars Onion (104 days) *Allium cepa* F-1 hybrid. Crop failure forces us to discontinue this big round purplish-red onion. A big hit among commercial growers, Mars is uniformly ready Sept. 1 in central Maine. Good storage into April. We hope to have back in 2001. 1.68 lb. on hand at 81%. A=1/16oz, 50¢, ~560 seeds.

6850 Green Deer Tongue Lettuce (48 days) *Lactuca sativa* Also known as Matchless, venerable heirloom is companion to Red Deer Tongue with thick green pointed leaves radiating from a compact center. Slow to bolt. 1999 crop failure. Only 140 packets left at 92% germination. Order early; these won't last long. We hope to have back in 2001. OCIA-certified organically grown seed. ① A=1g, 50¢.

6852 Empire Iceberg Lettuce (72 days) *L. s.* Heads slightly larger than Ithaca and Summertime, but not as firm. We discontinued because demand for this large-headed type steadily dwindled over the past fifteen years and sales were very low. 88% germination. A=1g, 50¢.

6856 White-Ribbed Smooth-Leaf Swiss Chard (50 days) *Beta vulgaris* (cicla group) We offered as a substitute for Fordhook Giant last year. Very similar to Fordhook. We have more than 10 lb. of seed at 80% germination. A=1/16oz, 50¢, B=2 oz, 80¢, C=½ lb, $2.50.

6858 Mei Qing Pac Choi (45 days) *Brassica rapa* (chinensis group) F-1 hybrid. Baby pac choi with green stems likes cool temperatures. Bolt resistant. Vase-shaped plants have broad green petioles with beautiful dark leaves. Discontinued because replaced by Shuko, a dead ringer. About 2.6 lb. remain at 92% germ. A=1/16oz, 50¢.

6860 Kailaan (65 days) *Brassica oleracea* (alboglabra group) Also known as Gai Lown. Prized for its mild green leaves and sweet, juicy stem, the former often sautéed or added to soups, the latter enjoyed in salads or stir-fries. Sales were slow, most customers prefer its replacement #3396 Raab. 83% germination, plenty of seed to last the season. A=1/16oz, 50¢.

6862 Julius Savoy Cabbage (95 days) *B.o.* (capitata group) Hybrid. Handsome savoyed 4-5 lb. blue-green heads ripen just before midseason. Each is a uniform perfectly proportioned globe. Discontinued because no longer in production. We have about 165 packets remaining at 91% germination. A=.5g, 50¢.

6863 Majestic Cauliflower (68 days) Hybrid. Our earliest cauliflower, reliable and reasonably sized for summer production. Heads average 5-6", weighing from 10 oz. to 1 lb. with good color. Rugged enough to withstand hot dry conditions. Discontinued because of crop failure. We hope to have back in 2001. We have about 90 packets left at 87% germination. A=.5g, 50¢, ~100 seeds.

6867 Mexibell Hot Pepper (70 days) *Capsicum annuum* F-1 hybrid. 1988 AAS. In 1998 sales were only half what they had been. Will our second attempt to discontinue Mexibell be greeted with as many howls of protest as the first? Mexibell was intended to be a novelty—shaped like a bell, but, SURPRISE!, unlike every other bell hiding some heat in its ribs. 2,500 Scoville units. 86% germination. A=.2g, 50¢.

6868 Whippersnapper Cherry Tomato (52 days) *Lycopersicon esculentum* Det. Alas, these early pinkish-red tart cherries failed to produce a crop. Discontinued this year; they will be back in our regular line-up in 2001. Our very limited supply germinates at 85%. A=.2g, 50¢.

6872 White Potato Leaf Tomato (85 days) *L. e.* Ind. A wonderful example of tomato diversity, these large yellow-white fruits have a tart, almost vinegary, zip. Comments at our trial: "Almost like eating a lemon." "Put these in your salad and you won't need the dressing." Guess we were a little out there with this selection: Only 134 of you were sufficiently adventurous to try it in two years. Dwindling supply of seed left at 75% germination. ① A=.2g, 50¢, ~65 seeds.

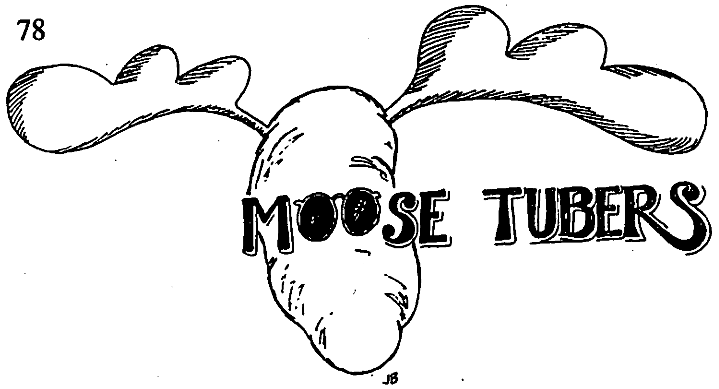
6876 Elephant Head Amaranth *Amaranthus gangeticus* This 110-year old heirloom has a flair for the dramatic. One customer described it "as the most eye-catching and funniest looking thing I've ever grown." Another said it knocks 'em out at farmers markets!" The maroon-red, almost purple, bloom develops a 6-12" "trunk" at its top during August. The plant grows to a height of 3-4' and the bloom is about 8-12" at the base. Start indoors 6-7 weeks before last frost. Germinate in 70-75 degree temperatures. Discontinued because of crop failure. We hope to have back in 2001. We have more than 300 packets at 83% germination. ① A=.1g, 50¢, ~150 seeds. 42,000 seeds/oz.

6884 Panorama F2 Snapdragon *Antirrhinum majus* Discontinued because we liked the Rockets better in our trial. Non-hybrid produced from hybrid parents. High-quality blended mix shows golden yellow, rose, orchid, bronze, red and white flowers with soft fragrance. 20" plants bloom a long time. Refrigerate seeds, then expose to light to germinate. Sow indoors in cool place 8-10 weeks before setting out. 65% germination. A=.2g, 50¢, ~1,460 seeds.

6886 Sonnet Mix Snapdragon F-1 hybrid semi-dwarf. Blooms refined, early and in a full range of very bright colors. Annual grows 20". Discontinued because we no longer have a reliable supply. A=.025g, 50¢, ~50 seeds, 180,000 seeds/oz.

6892 Mountain Bluet *Centaurea montana* Also known as perennial Bachelor's Button. Native to the mountainous regions of central Europe. Airy 2½" flowers of violet-blue with purple centers are borne on bushy 2' plants. Easy to grow, they like a well-drained sunny location. Blooms July through frost. Zones 3-8. 60% germination.A=.25g, 50¢, ~20 seeds.

> "Whoa! I cannot believe what I just read! FLASH—a second attempt to discontinue Mexibell hot pepper! Who needs 'terminator technology' with just a *flash* of your pen and Mexibell is gone forever. I thought Fedco was 'the savior' of seeds tossed aside by other 'better known' companies."
> Steve Cluskey, Albany, OR



Certified Seed Potatoes, Onion Sets & Sunchokes

Welcome to our 14th listing of high-quality certified seed potatoes. We also offer Dutch-grown onion sets, shallots and Maine-grown sunchokes. Our extensive potato list ranges from new releases to old heirlooms, from early-maturing moist red-skinned boilers to late-maturing dry russets for storage, in a wide selection of colors, textures and flavors to enchant your eye and tantalize your palate. How to choose? For an overall comparison see the variety chart on pg 80.

With so much of the seed industry forming conglomerates, it pleases me to be able to work directly with the growers. Most of our seed potatoes are grown in the Northeast by family farms. Because of the independence of these smaller growers, I am able to offer varieties that large agribusiness-type operations won't grow. These varieties include heirlooms handed down through generations, old varieties dropped from the seed trade and new releases such as our NY L-235-4, classically bred for insect resistance.

This coming year can be an exciting time for us all as we focus on where our seed comes from, thus where our food comes from. Let's celebrate our biodiversity by supporting our smaller growers, family farms and the seed savers.

We are proud to be offering 16 organically grown potato varieties; in fact, we're highlighting them in their own section.

We no longer offer sweet potato slips. After trying for two years, we are still unable to receive timely shipments and provide you with slips in satisfactory condition. We recommend trying Fred's Plant Farm in Martin, Tennessee; several of the varieties they offer are suitable for the North. Their number is (800) 550-2575.

We value your input. Any feedback or suggestions are appreciated and often help us choose what we offer. Want to get involved in potato selection? Join our network of trial growers. Call me at (207) 873-7333 or write to PO Box 520, Waterville, ME 04903.

Alison LaCourse, potato coordinator

Complete Ordering Instructions

- See page 4. Order form on p. 52E in center of catalog.

New for 2000!

- Bransweiger - Dutch red onion set
- Red Sun - Maine-grown red shallot for spring planting
- The Blues - a collection to put a smile on your face
- Minitubers - vigorous and high-yielding
- Organic varieties -
  - * Yukon Gold * All Red * Purple Viking * * Butte * Green Mountain *
- Blue Pride - Canadian blue with top performance and flavor
- Rose Gold - Midseason red with delicious yellow flesh
- Coastal Russet - Attractive russet with excellent flavor
- Desiree - Desirable spud with red skin and yellow flesh
- Garnet Chili - Released in 1853—exquisite flavor

Substitutions

Because potatoes are alive and subject to crop limitations, we'll always run out of some varieties before the end of the season. We find that most people prefer getting potatoes to a refund. Unless you indicate on your order sheet that you will not accept subtitutions, we'll follow this protocol:

For commercial varieties -

We will substitute a variety of similar color and season.

For organic varieties -

We will substitute the same variety, grown without synthetic insecticides, fertilizers or herbicides, but not *certified* organic and refund the price difference.

If that's not available, we'll substitute certified organic stock of a similar variety.

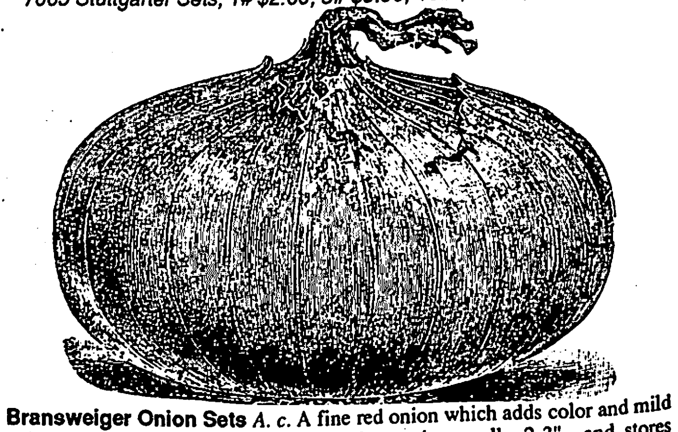
If neither of those is available, we will substitute commercial stock of the same variety and refund the price difference.

If you have specific preferences, please indicate them on your order sheet.

ONIONS & SUNCHOKES

Stuttgarter Onion Sets *Allium cepa* We always get excellent flat-bottomed yellow onions which store till June from these top quality Dutch sets. They provide us with a kitchen staple and great onion soups. To produce large bulbs, onions need to be planted as early in spring as the soil can be worked as they are day-length sensitive. Shallow rooted, they require consistent water and freedom from weeds. Side-dress with composted manure and wood ash. In row culture, plant 6" apart in rows 18" apart and mulch when plants are 12-18" tall. In bed culture, plant 5-6" apart in 24-36" wide bed. 1# contains approximately 200 sets and yields 30-40#.

7005 Stuttgarter Sets, 1# $2.00; 3# $5.50; 10# $14.00; 30# $40.00



Bransweiger Onion Sets *A. c.* A fine red onion which adds color and mild onion flavor to any salad. Quality Dutch set sizes well—2-3"—and stores through most of the winter. Same cultural requirements and yields as for Stuttgarter.

7010 Bransweiger, 1# $3.00; 3# $8.00; 10# $21.00; 32# $45.00

Dutch Shallots *A. c.* (aggregatum group) Beautiful vigorous plant with its many onion-like leaves growing in a circle around the original set, also called Multiplier Onions. Good as green onions (scallions) for spring and early summer use. For consistently large mature shallots, maintain high fertility and a steady supply of water. Their excellent storage qualities make shallots valuable after the onions are gone. Taste is similar to onions. Different from French shallots, which Fedco Bulbs offers for fall planting. Plant every 6-8" in rows 18" apart.

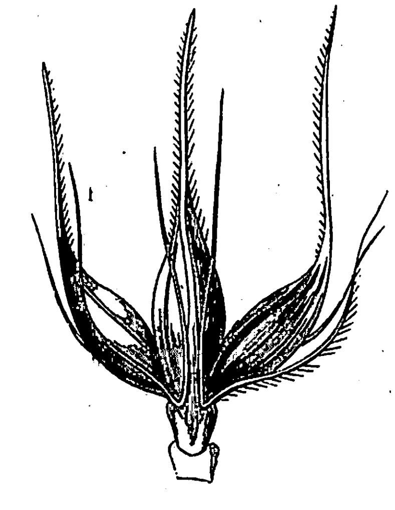
7015 Dutch Shallots, 1# $3.00; 3# $8.00; 10# $21.00; 25# $40.00

Red Sun Shallots *A. c.* Excellent producer of clusters containing 8-10 shallots. Bronze-red skins and flattened bulbs with light purple flesh. Mild flavor is a nice addition to salads or sautéed. Grown locally for us by Herman Roberts of Exeter, ME. Limited supply, one size only.

7020 Red Sun, 1# $3.00

Sunchokes *Helianthus tuberosus* Also known as Jerusalem Artichokes, though neither from Jerusalem nor related to globe artichokes. Sunchokes, wonderfully vigorous perennial tubers, are a delight to dig in the spring. They can be eaten boiled, baked or fresh, and have a unique flavor. Some folks love them and some folks feed them to the pigs, who also love them. Can be used as ornamentals for their 6' annual foliage with yellow daisy-like flowers on top. Plant sunchokes in an area that is easy to control; they will spread and are difficult, if not impossible, to eradicate. Maine-grown without herbicides, pesticides or chemical fertilizers. Shipped separately in early May.

7025 Sunchokes, 1# $7.00; 3# $16.00; 10# $32.00; 30# $76.00



Robust Barley *Hordeum vulgare* A six-row barley valuable as feed, excellent as a spring cover crop. Fast growing and abundant, produces the most biomass of any grain and outcompetes weeds very effectively. Thrives on well-drained fertile soil but tolerates alkaline and heavy soils as well as drought. As a trap crop, barley takes up nitrogen. Seed at 60-90#/acre, 3#/1000 sq ft. Maine-grown seed comes out of Aroostook with the potatoes. We list it with them because we will ship it with them. Please order barley on Moose Tubers order form. *Not available until potatoes are available.*

7030 Robust Barley, 5# $3.00; 25# $11.00 48# $18.00

Our Seed Potatoes

All our potatoes meet the certification standards set by the grower's state or province. After passing several field inspections, sample potatoes are grown out in Florida and examined for the presence of viral disease. Only lots where fewer than 5% of the plants show any sign of disease are certified.

Our potatoes come from many sources: well-established commercial growers in Aroostook County, Maine; New Brunswick, Canada; Colorado, and MOFGA-certified organic WoodPrairie Farm, Margeson Farm and LaCourse Family Farm. See chart on p. @ for source of each variety.

Organic Seed Production

The demand for organically grown seed has increased enormously the last few years, but the supply is not keeping pace. We are seeking certified organic growers with access to good storage willing to work with their state's certified seed program. In the Northeast, Maine, New York and Pennsylvania have certified seed programs.

Colorado Certified Seed

Verlin Rockey of Rockey Farms grows our Colorado certified seed potatoes. Promoting plant and soil health, he does not use synthetic fertilizers, pesticides or fungicides. He uses sulfuric acid, which quickly breaks down to sulfur dioxide and water, to kill the foliage before harvesting. This prevents organic certification of his crop.

GROWING POTATOES

Upon Arrival

Inspect your order as soon as it arrives. If you are not going to plant within two weeks, store seed in a dark cool (around 40°) fairly humid place. Do not remove growing sprouts; these are your new plants. Warm the seed to 60-70° for two weeks before planting.

Cutting Seed

Small tubers planted whole are less sensitive to seed piece decay than cut pieces. You can cut large tubers into pieces of two ounces or more with at least two eyes. Many varieties have eyes clustered at one end, so be sure to distribute eyes evenly when cutting. Fingerling eyes spiral the length of the tuber so you may cut them into discs or wedges. Letting the tubers skin over (suberize) for a day or two can be valuable in heavy soils, but cutting and planting can be one operation.

Chitting or Green Sprouting

You may use chitting to encourage early growth, speed development of marketable tubers, and perhaps increase yields. Warm tubers to 65° in the dark for about two weeks, then spread them out with most of the eyes facing up in a warm place (60-70°) with medium light intensity for about two weeks. This stimulates strong stubby sprouts at the bud end that are not easily broken off.

Soil Preparation

Potatoes grow in any well-drained fertile soil. Work in compost or aged manure. Using uncomposted manure, lime or wood ash the year of planting will increase the incidence of scab. Turn new ground the year before and plant with a rye/vetch cover crop. Rotate potatoes (and other Solanaceae family members: tomatoes, peppers, and eggplants) with other plant families in at least a 3-year or, preferably, a 4-year rotation.

Planting

Plant when the soil is dry enough to work easily and has warmed to at least 45°, about when dandelions bloom. Planting in cooler soil slows emergence and increases the chance of seed piece decay. Planting in hot dry soil also increases the risk of seed piece decay. Plant in furrows 4-6" deep, in rows 32-36" apart. Space seed pieces 8-12" apart and cover with 2-4" of soil. One pound of seed will usually plant 5-8 row feet; 20 pounds will usually plant 100 row feet. Using 2 oz. seed pieces 12" apart with 36" row spacing, you will need approximately 1800 lbs. (or 900 lbs. fingerlings) per acre.

Cultivation and Hilling

Cultivate shallowly as needed during early growth. Hill when plants reach 6" and again at 12-15". After the second hilling, plants will shade and outcompete weeds. Don't cover plants completely when hilling. Be gentle so as not to damage the roots. Hilling gives the plants room to develop potatoes between the seed piece and the soil surface. Mulch plants after the second hilling to help retain soil moisture, control weeds and reduce incidence of sunburn.

Irrigation

Potato plants are sensitive to small changes in soil moisture because of their shallow (12-15") root systems. Tuber yield and size are directly related to the amount of water available during two critical growth stages: tuber initiation and tuber bulking. Tuber initiation is a 10-14 day period when tubers form at stolon tips. For most varieties, the end of this stage coincides with early flowering. Tuber bulking follows and continues until plants are mature. Lack of water tends to increase incidence and severity of scab, and will affect yield and overall size of the potatoes. Inconsistent water may cause growth cracks, hollow heart and second growth. Ensure 1" of water weekly from plant emergence until two weeks before harvest.

labra dor
pachaca

Harvest and Storage

Early harvest or "robbing the plant" can be done anytime you can find potatoes, approximately 60 days after planting or 30 days after flowering. These are new potatoes to be eaten; they will not store well. Robbing the plants will diminish your final harvest.

Potato plants are mature when the vines start to senesce, or die back and fall over. You may cut, mow, flame-kill or allow them to die naturally. Leave tubers in the ground for 10-14 days after the vines are dead before digging to give the skin time to "set," and to prevent transmission of blight spores from foliage to tubers. Harvest in cool dry weather if possible. After digging the spuds, dry them for at least a few hours in the row before gathering. Lightly brush off excess dirt but don't wash potatoes intended for storage. Hold at 55-60° for several weeks to allow harvest injuries and bruising to heal; then store only sound tubers at 38-40° with 85-90% relative humidity in complete darkness.

Yields

An average yield is 10 pounds harvested to 1 pound planted (10:1). Less than 6:1 probably indicates a problem, likely caused by low fertility, lack of water, or excessive disease or insect pressure. Yields as high as 20:1 are exceptional, but can be achieved. Fingerlings have very high yield potential and can surpass 30:1 with good care. Commercial operations in Maine average around 230 hundredweight per acre.

Late Blight

Late blight is caused by the fungus *Phytophthora infestans*, which fortunately survives for only a few days without a living host. Outbreaks are most likely to occur when temps around 60° are accompanied by fog, rain or heavy dew for four to five days.

Dark brown to purple lesions with pale green to yellow margins develop three to five days after infection. Velvety white spores form on the underside of the leaf soon after lesions appear. Spores die rapidly when humidity drops below 95%. Tubers can become infected before or during harvest. Infected tubers show a shallow sunken coppery-brown dry rot moving from the skin toward the center. These lesions frequently become infected by other bacteria and fungi causing a rapid breakdown of the tuber.

Although late blight can be contracted through the seed, the chief cause of infection is from windblown spores spread during damp weather from poorly composted cull piles, volunteer potato plants and neighboring fields of infected potatoes or tomatoes.

Use an appropriate control program if late blight is a threat in your area. MOFGA sometimes recommends a regular prophylactic spray schedule with copper, beginning when the plants are 6" tall and continuing every 7-10 days depending on weather. Please contact Eric Sideman at MOFGA, (207) 622-3118, or your local Cooperative Extension Service, for further information.

Potatoes at a Glance

Variety	Availability & Item # OG	Mini	CS	Maturity	Skin Color	Flesh Color	Shape	Texture	Yield	Storage	Scab Resistance	Sources
AC Chaleur			7305	E	buff	W	R	waxy	H	G	G	NB
All Blue	7140		7465	M	dark purple	bright purple	Ob	moist, firm	M-H	E	M	MO, M
All Red	7145		7480	M	red	pinkish-red	R	moist	M	G	G	MO, C
Austrian Crescent			7230	M-L	tan	yellow	F	waxy	M	G	H	C
Banana	7075		7245	M-L	yellow	yellow	F	waxy	M	G	H	MO, C
Bintje			7675	L	yellow	yellow	Ob	waxy	H	F	M	C
Blossom			7690	L	red	pink	L	waxy	M	G	M	C
Blue Mac			7705	L	lilac-blue	W	R	dry, mealy	H	G	M	NB
Blue Pride			7495	M	blue	W	Ob	dry, mealy	H	E	M	NB
Butte	7190			L	medium russet	W	L	dry, mealy	H	E	H	MO
Caribe			7315	VE	purple	W	Ob	waxy	H	G	G	NB
Carola	7150		7510	M	yellow	yellow	Ob	moist, firm	H	G	H	MO, M
Chieftan			7330	E	bright red	W	R	moist, firm	H	F	H	M
Chippewa			7525	M-E	cream	W	OF	moist, firm	M-H	G	M	M
Coastal Russet			7540	M	medium russet	W	L	dry, mealy	H	G	G	NB
Dark Red Norland	7120		7345	E	dark red	W	Ob	moist, firm	H	F	H	MO, M
Desiree			7720	L	red	yellow	L-Ov	moist, firm	H	G	M	C
Early Blue	7125			E	blue w/ white eyes	white w/ purple	Ob	moist, firm	M-H	G	G	MO
Elba			7735	L	buff	W	R	waxy	H	E	H	M
Eramosa			7360	VE	buff	W	OF	waxy	H	F	G	NB
French Fingerling	7080		7260	M-L	dark rose red	yellow	F	waxy	H	G	H	MO, C
Frontier Russet			7375	E	light russet	W	Ob	dry, mealy	H	E	G	NB
Garnet Chili		7225		L	light red	W	R	moist, firm	H	G	M	C
German Butterball			7750	L	yellow	yellow	Ob	dry, mealy	H	E	G	C
Green Mountain	7195		7765	L	netted buff	W	Ob	dry, mealy	H	E	M	MO, M
Kennebec	7160		7555	M	buff	W	Ob	moist, firm	H	E	M	MO, M
Kerr's Pink	7165		7570	M	pink	W	OF	floury	M-H	S	G	MO, C
Krantz			7585	M	medium russet	W	Ob	dry, mealy	M-H	S	H	M
NY L-235-4			7780	L	buff	W	R	dry, mealy	H	E	M	M
Onaway			7390	E	buff	W	R	moist	M-H	E	H	M
Ozette		7210		L	buff	W	F	waxy	H	G	H	C
Peanut			7275	L	netted tan	yellow	F	waxy	M-H	G	H	C
Purple Chief			7600	M	purple	W	L	dry, mealy	H	G	M	NB
Purple Peruvian		7215		VL	purple	purple	F	dry	M	G	H	C
Purple Viking	7175		7615	M	purple w/ pink splashes	W	R	waxy	H	E	H	MO, C
Red Cloud			7795	L	dark red	W	R	dry, mealy	H	E	G	M
Reddale	7180			M	bright red	W	R	moist	H	G	H	MO
Red Gold			7405	E	red	yellow	R	waxy	H	S	M	NB
Red Pontiac			7810	L	dark red	W	R	moist	H	E	M	M
Rose Finn Apple	7100		7290	M-L	rose blushed beige	bright yellow	F	waxy	M	G	H	MO, C
Rose Gold			7630	M	rose-red	yellow	R	moist, firm	M	G	M	C
Ruby Red			7645	M-L	dark red	W	R	moist, firm	M-H	G	H	M
Saginaw Gold	7185	7220		M-L	yellow	yellow	R	waxy	H	E	G	MO, C
Sangre			7420	E	deep red	W	Ob	moist, firm	M-H	E	G	C
Tobique			7435	E	tan w/ pink eyes	W	Ob	waxy	H	G	H	NB
W-1005-R			7825	L	heavy russet	W	L	dry, mealy	H	E	G	M
Yellow Finn			7660	M	yellow	bright yellow	OF	waxy	M-H	E	G	C
Yukon Gold	7135		7450	E	yellow-buff	light yellow	Ov	dry, mealy	L	E	M	MO, M

Types of Certified Seed available and item number—

OG: Organically Grown, Mini: Minitubers, CS: Commercial Seed

Maturity: VE=very early, E=early, M=midseason, L=late.

Flesh: W=white.

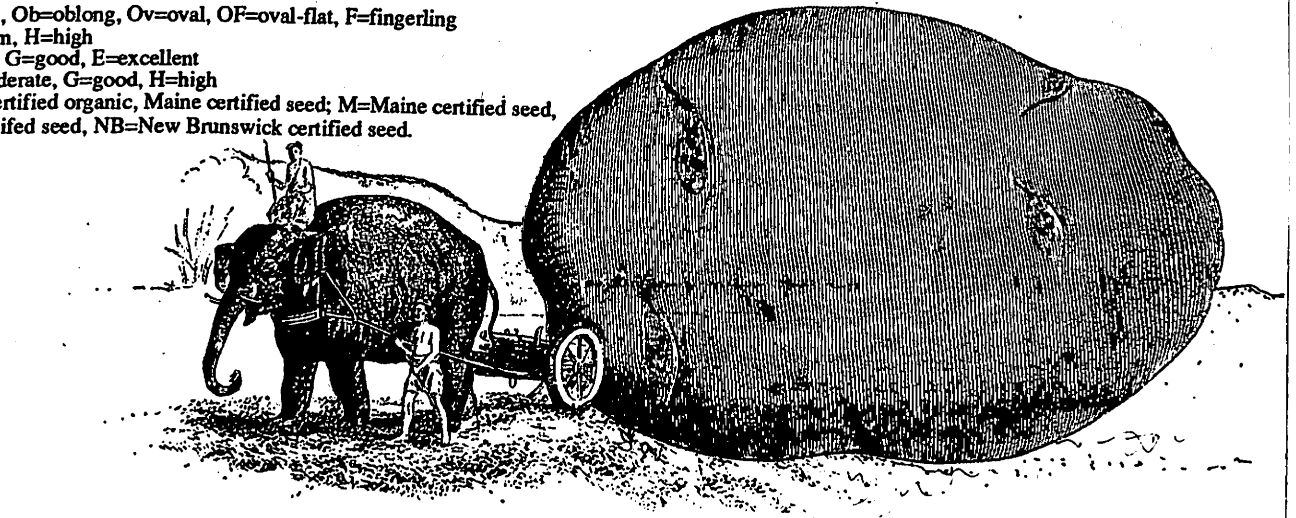
Shape: R=round, L=long, Ob=oblong, Ov=oval, OF=oval-flat, F=fingerling

Yield: L=low, M=medium, H=high

Storage: S=short, F=fair, G=good, E=excellent

Scab Resistance: M=moderate, G=good, H=high

Source: MO=MOFGA certified organic, Maine certified seed; M=Maine certified seed, C=Colorado certifed seed, NB=New Brunswick certified seed.



SEED POTATOES *Solanum tuberosum*

COLLECTIONS

Having trouble deciding which variety to choose? We've put together collections to help. Should any listed variety become unavailable, we reserve the right to substitute.

Speciality Organics Specially grown for you in Maine and all MOFGA-certified organic! Contains All Blue, All Red (Cranberry Red), yellow Carola, gorgeous Rose Gold, and Red Cloud. Imagine this selection on an antipasto platter drizzled with garlic vinaigrette. 2½# of each variety.

7050 Speciality Organics, 12½# $22.00

Fantastic Fingerlings Introduce yourself to the world of fingerlings. Contains 1# each of French Fingerling, Kipfel (large with tan skin and yellow flesh), Peanut, Rose Finn Apple; and 10 Ozette minitubers. Beautiful baked in a spiral lightly dusted with garlic powder, olive oil and dill.

7055 Fantastic Fingerlings, 5# $20.00

The Classic Starting with early Cobbler (white of unknown origin, great mashed or roasted) and ending with late Green Mountain, this collection of tried and true varieties will reward you with delicious spuds throughout the season. Also contains Chippewa, Kennebec and Red Pontiac. All of these varieties were released before 1955. 2½# of each variety.

7060 The Classic, 12½# $14.50

The Blues These blues will cheer you up with their varied flower colors and delectable flavors. You will be supplied throughout the season from fast-bulking Caribe to the heavy set and late maturity of Blue Mac. In between come All Blue, Blue Pride and Purple Chief. 2½# of each variety.

7065 The Blues, 12½# $14.50

ORGANIC POTATOES

All this year's organically grown stock is MOFGA-certified organic and Maine certified seed. We work to make more organically grown varieties available every year.

FINGERLINGS

Long and thinner than most potatoes, with interesting skin and flesh colors, fingerlings are very popular with restaurants, fresh markets and home gardeners. These beautiful potatoes tend to be quite prolific, late maturing and resistant to scab and rhizoctonia. Their flavor and culinary qualities are unsurpassed.

Banana yellow skin, yellow flesh Also known as Russian Banana. Probably the best-known of the fingerlings. Loved for its heavy yields of medium-sized tubers, luscious fingerling flavor and waxy texture. Huge yields can be obtained by providing optimum levels of water and nutrients. Plants are medium-sized and mature midseason. Also available as commercial seed.

7075 Banana organic, 1# $3.75
3# $8.50; 10# $25.00
25# $55.00; 50# $100.00

French Fingerling dark rose red skin, yellow flesh This show-stopper with glistening smooth rose-red skin and rich yellow flesh slightly splashed with pink wows us every season. Creamy taste and firm texture make it one of my favorites any way I use it. French Fingerling produces numerous large tubers and is sure to become important for growers and home gardeners alike. Shows some resistance to potato leafhopper. Tall spreading plant. Also available as commercial seed.

7080 French Fingerling organic, 1# $3.75; 3# $8.50
10# $25.00; 25# $55.00; 50# $100.00

Rose Finn Apple buff skin with rose blush, bright yellow flesh One of my favorite potatoes, with smooth thin skin and firm moist flavorful flesh. Bake them in a pan with whole garlic cloves, olive oil and kosher salt. Requires your best ground and prefers irrigation, but worth the extra trouble. Best yields are obtained by spacing plants 10-12" apart to avoid connected clusters. Large rose-blushed spuds with clean appearance make Rose Finn a real looker. Popular with growers for market and restaurants. Plants are medium-sized and mature late. Also available as commercial seed.

7100 Rose Finn Apple organic, 1# $3.75; 3# $8.50
10# $25.00; 25# $55.00; 50# $100.00

EARLY

Dark Red Norland dark red skin, white flesh Norland has long been the standard early red, delicious for those first tubers of the year. When David and Susan think of eating new potatoes with parsley on a summer night, they think of Norland. Excellent for boiling and good for baking. A recent selection from Norland for its brighter skin color. Matures slightly later than its parent, with consistently higher yields. Medium-to-large plants with purple flowers. Fair storage with medium dormancy. Also available as commercial seed.

7120 Norland organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

Early Blue blue skin, white flesh with purple streaking Early Blue's beautiful deep blue skin, white eyes and white flesh lightly streaked with purple stood out in our 1997 trials. Medium-sized plants yielded a heavy set of smooth evenly sized tubers. All-purpose potato well suited for steaming, boiling and baking. We are pleased to be able to offer this organic variety.

7125 Early Blue organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

Yukon Gold yellow-buff skin, light yellow flesh Yukon Gold has good flavor, good storability, and drier texture than most yellows. Tubers are oval and slightly flattened with small pink eyes that distinguish it from other yellow-fleshed varieties. With excellent name recognition, it is often the only yellow-fleshed variety on supermarket shelves and in gourmet catalogs. Very popular. Be aware that Yukon is known for poor emergence and low yields. Resistant to mild mosaic and leaf roll. Released by AgCanada in 1980. Also available as commercial seed.

7135 Yukon Gold organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

MID-SEASON

All Blue dark purple skin, bright purple flesh Add zest and color to your potato meals! Once considered only a novelty, All Blue has become a popular specialty variety. I always grow a few of these for their really great flavor. Brilliant purple-fleshed spuds and fresh green peas makes a delightful color combo as well as a delicious potato salad. Vigorous plants with blue blossoms have solid yields and store well. Also available as commercial seed.

7140 All Blue organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

All Red red skin, pinkish-red flesh Also known as Cranberry Red, these spuds are the best red-skinned, red-fleshed variety we've grown. Heavy yields of large smooth tubers have a moist texture best used for roasting and salads. A red, white and blue salad? Why not? Vigorous plant, medium maturity. Also available as commercial seed.

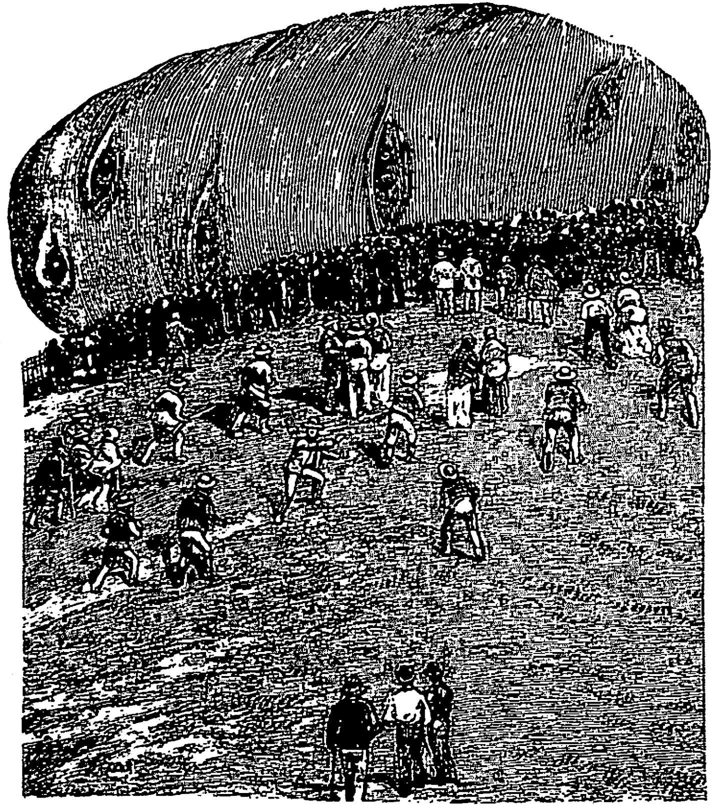
7145 All Red organic, 2½# $4.50; 5# $8.00; 20# $21.00

Carola yellow skin, yellow flesh Once known only to small-scale farmers and gardeners, Carola is becoming the "potato lover's potato." A customer and staff favorite (always part of our lunches during potato repack season) for its exquisite flavor and moist creamy texture. Introduced in 1979 from Germany, Carola consistently shows high yield, good disease resistance, and long storage. Top quality any way you cook it. Deservedly our best seller. Organic seed grown by Ed and Erich Margeson. Also available as commercial seed.

7150 Carola organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

Kennebec buff skin, white flesh For decades Kennebec has been *the* standard home garden variety. Widely adaptable to varying soil conditions. Produces high yields of large delicious spuds for fresh eating and storage. Great any way you prepare them. Large plant with a dense canopy of white flowers. Resistant to late blight; susceptible to rhizoctonia. Released by USDA and Maine in 1948. Also available as commercial seed.
7160 Kennebec organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

Kerr's Pink pink skin, white flesh Irish heirloom variety bred in 1907 and awarded the Lord Derby Gold award in 1916. Produces heavy set of small-to-medium tubers which have beautiful beige skin overlaid in pink, with darker pink around the eyes. Flesh is creamy white; dry, floury and smooth when steamed. Still grown commercially in Ireland and Scotland where the floury texture is in demand. Also available as commercial seed.
7165 Kerr's Pink organic, 2½# $4.50; 5# $8.00; 20# $21.00



Purple Viking purple skin with pink splashes, white flesh Looking for Daku's Round Purple? Some consider Purple Viking to be the same variety. Try some of these and you can join the controversy. In our trials they were very similar. Pink-splashed purple skin and snow-white flesh make this potato stand out. Exceptionally crisp skins when baked. Produces a nice crop of lunkers. Compact plant with rounded leaves shows some resistance to hopperburn. Also available as commercial seed.
7175 Purple Viking organic, 2½# $4.50; 5# $8.00

Reddale red skin, white flesh Prolific producer of uniform large tubers with smooth bright red skin that store well. Known for its rapid bulking, this variety has potential for an early market red. Excellent boiled or baked. Medium-large plant with pink flowers. Highly resistant to scab, verticillium wilt and late blight. Organically grown by Jim and Megan Gerritsen at WoodPrairie Farm in Bridgewater.
7180 Reddale organic, 2½# $5.50; 5# $9.50; 20# $27.00; 50# $52.00

Saginaw Gold yellow skin, yellow flesh I can always count on Saginaw to give a decent yield of nice round golden spuds even in marginal growing years. With a medium-dry texture, it is excellent any way but especially for french fries. Resistant to rhizoctonia and hollow heart. I always have some of these in my root cellar! Limited supply; order early. Also available as minitubers.
7185 Saginaw Gold organic, 2½# $4.50; 5# $8.00; 20# $21:00

ORGANIC LATE

Butte medium russet skin, white flesh A favorite russet of ours for its "just-right" mealiness and tastiness. Heavy yields of attractive tubers are great baked, mashed or fried. Butte is higher in vitamin C and protein than any other variety. Medium-sized upright spreading plant has red-purple flowers with white tips. Resistant to common scab, hollow heart, and net necrosis. Also has field resistance to late blight. Released in 1977 from Idaho. Organically grown by WoodPrairie Farm.
7190 Butte organic, 2½# $5.50; 5# $9.50; 20# $27.00; 50# $52.00

Green Mountain buff skin, white flesh We are fortunate to have this heirloom from 1885 known for excellent baking qualities still available. Its susceptibility to viral diseases has made it difficult to keep in certified seed production. People ask for it by name and it continues to grace many supper tables in Maine year after year. Dry texture. Good appearance and great flavor won't fade in long storage. Resistant to fusarium storage rot, black leg and verticillium wilt. Also available as commercial seed.
7195 Green Mtn organic, 2½# $4.50; 5# $8.00; 20# $21.00; 50# $40.00

WOODPRAIRIE FARM

In the forefront of the Maine organic farming community is remotely situated WoodPraire Farm, owned and run by Jim and Megan Gerritsen and their three children.

In 1976 Jim moved to Northern Maine and found an isolated abandoned potato farm on the end of a dead end road. While they engaged in the trial and error of finding ways to make a living farming, Jim and Megan lived "off the grid" with solar power and a generator. They grew their own food, kept a herd of sheep and a Jersey cow. Their farm outlets evolved through farmer's markets and a CSA into wholesale and, inspired by many requests to ship their products, a mail-order catalog. The home mail-order business dictated their choice to bring in power lines, but they still raise most of their food and milk the cow.

Potatoes are the Gerritsen's favorite crop and the focus of their catalog. Grains, both a food crop and an ideal rotation for potatoes, were a natural inclusion in the catalog. Their 110-acre farm typically is 40 acres of cropland, 10 of potatoes, 10 of grains and 20 of clover (for plowdown).

WoodPrairie Farm is part of the vast coalition of organic, farm and environmental organizations who have sued the EPA to revoke the registrations for genetically engineered (GE) crops. Jim and Megan have taken a very clear stand on GE: JUST SAY NO!

Jim was eager to promote his views about GE. As he explained it, the key question is, "Who benefits?"

Not the farmers. They didn't need NewLeaf potato, already having Bt available in a spray. With potatoes engineered to produce the Bt toxin, farmers have Bt in the field for up to 140 days (days to maturity for Russet Burbank, the #1 Bt potato grown in this country) instead of about 4 days when used as a spray.

And farmers are complaining about poor yields with GE potatoes; harvest of NewLeaf Atlantics is down 40%.

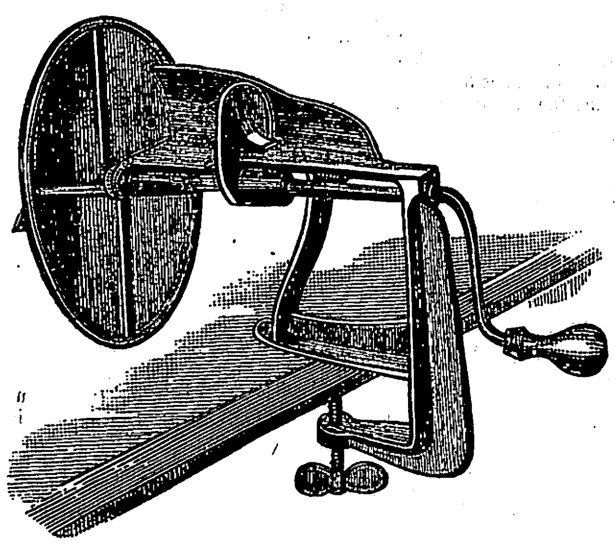
Not consumers. They didn't ask for it; they question its safety. Do GE foods taste better? Probably not.

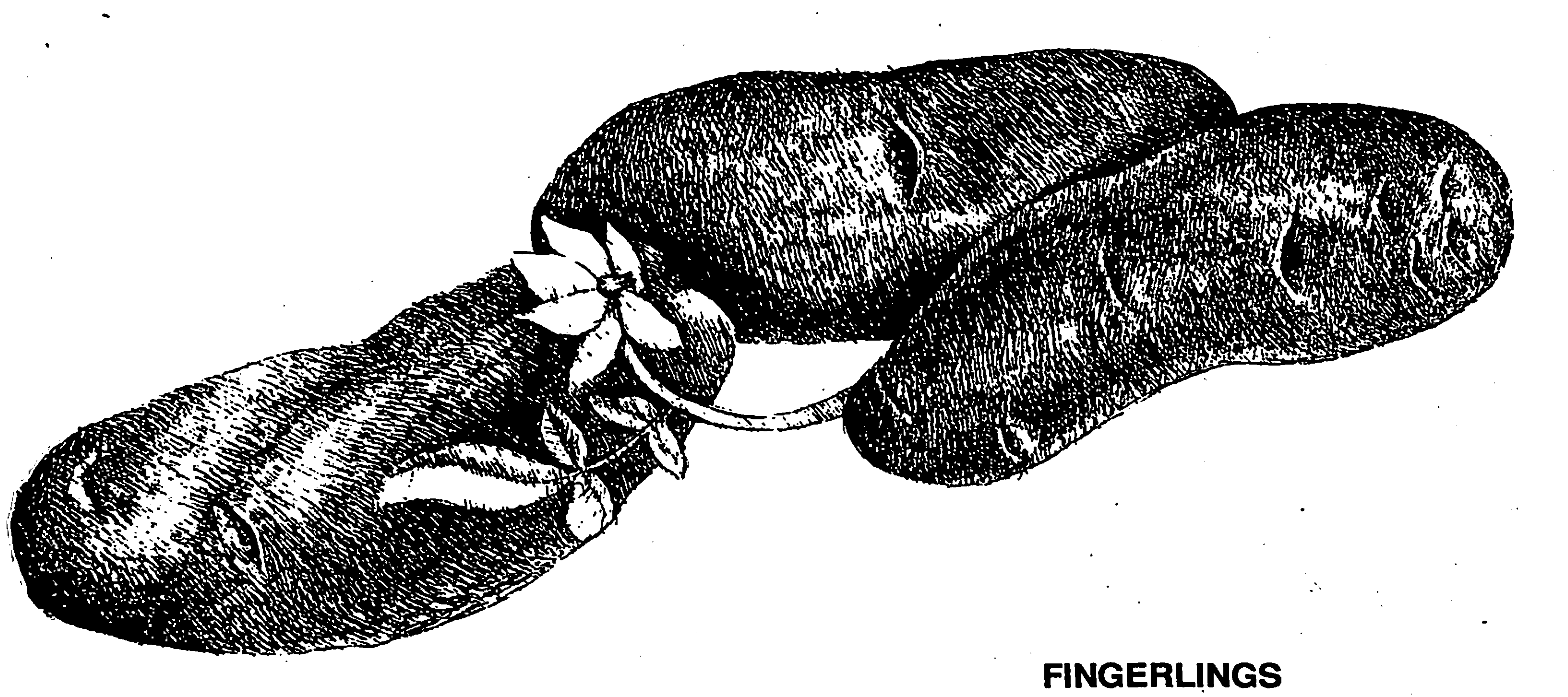
If the multinationals are so proud of this product, they should LABEL IT! Let consumers vote with their pocketbooks.

Even industrial food processors don't seem to be benefiting from GE. McCains, a major producer of frozen french fries, ran a segregated processing line for the last several years because Europeans would not accept GE foods. Who was getting the GE potatoes? Take a guess, American Consumer! McCains has stopped accepting Bt potatoes. So has Cavendish, a Canadian processor.

Jim thinks others perceive the organic farming community as cutting edge. It's our responsibility to set standards and say 100% no to GE, which includes not giving certification to any crops that could be contaminated by GE pollen drift.

Jim and Megan's biggest challenges sound familiar to a lot of us: "Trying to make a living, raise a family and have a life!" Their goal for the future is to provide a sustainable farm where their children can live and make a living. That's a fulltime challenge by itself, never mind keeping the world safe from the perils of genetic engineering. We're thankful to know folks like Jim and Megan.





MINITUBERS

Minitubers are high-quality seed potatoes that originate with laboratory-produced plantlets.

Having no or very low viral disease levels, they are capable of exceptional yields (up to 30# to 10 minis planted) under ideal growing conditions. Each tuber is approximately the size of a grape but will produce a normal-sized plant.

Plant minis at 1" depth and 10-12" apart. Do not cut the seed. The emerging plant, which is usually small, should be hilled when around 3-4" high and as many times again as needed to produce a 12-15" hill. All other cultural requirements are the same as for regular potatoes.

Shipping weight for minitubers is 0#.

MINITUBER FINGERLINGS

Ozette buff skin, white flesh Heirloom of the Makah/Ozette Indian tribe, these bumpy rustic-looking spuds produce exceptionally high yields, easily as much as 20:1. Staffers Gene and Joanna had a hard time choosing between the superb creamy flavor of Ozette and their favorites, Carola and French Fingerling. Large late-maturing vigorous plant has shown good leafhopper resistance. A fine choice for the home gardener and the adventurous market farmer. Available only as minitubers.
7210 Ozette, 10 minitubers for $9.50

Purple Peruvian purple skin, purple flesh Finally we are able to offer the only fingerling which is purple inside and out. Intense blue-purple skin and flesh makes this spud stand out—on the plate or at the market. Smooth earthy flavor excellent for home fries on a cold winter's night. Good choice for green sprouting as it is very late maturing. Resistant to scab and late blight. Medium-sized plant has white flowers with a purple star. Available only as minitubers. BACK!
7215 Purple Peruvian, 10 minitubers for $9.50

MINITUBERS

Saginaw Gold yellow skin, yellow flesh, midseason See description on p. 82.
7220 Saginaw Gold, 10 minitubers for $9.50

Garnet Chili light red skin, white flesh, late season When a variety gets top ratings in taste tests we take notice. This one was a winner with comments like "Full rich flavor and creamy texture." "Just the right amount of mealiness and sweetness." "Yummy taste!" With flavor like this it's no wonder this variety has been around so long. Originating in New York in 1853, Garnet Chili was a seedling of Rough Purple Chili, which was brought from South America and is one of the original varieties that were used as breeding stock in this country. Tubers are roundish with a light red skin and white flesh. Large tall late-maturing plants have reddish purple flowers. Available only as minitubers.
7225 Garnet Chili, 10 minitubers for $9.50

FINGERLINGS

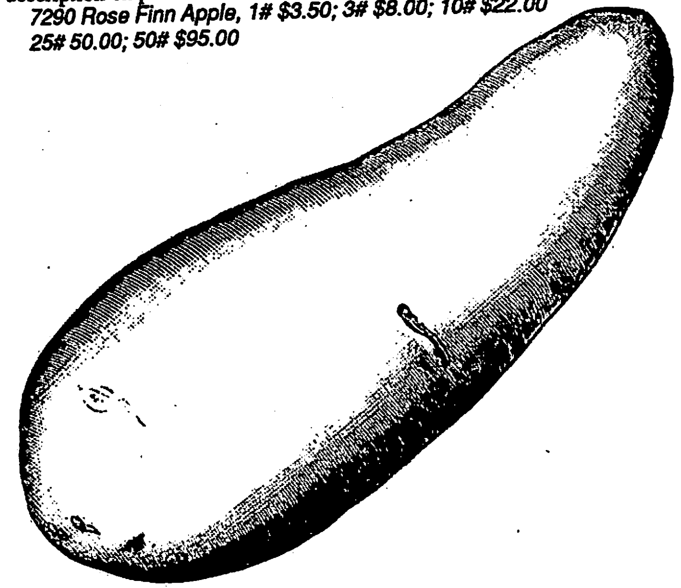
Austrian Crescent tan skin, yellow flesh Imagine Gene's surprise to harvest 10 lbs. of golden crescents growing from one plant of forgotten baby spuds! With tan skin and yellow flesh, Austrian Crescent can reach 10" and up to 18 oz. Wonderful as new potatoes, in salads or steamed. Medium-sized plants with mid- to late-season maturity.
7230 Austrian Crescent, 1# $3.50; 3# $8.00; 10# $22.00
25# $50.00; 50# $95.00

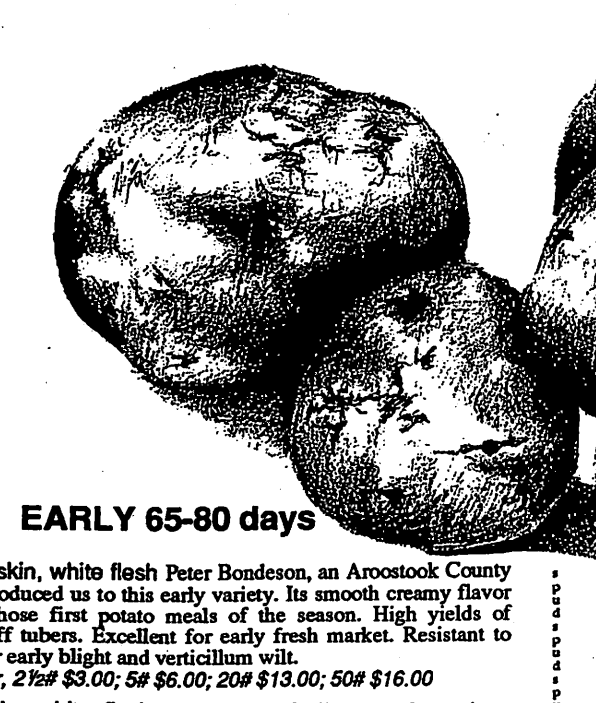
Banana yellow skin, yellow flesh See description on p. 81.
7245 Banana, 1# $3.50; 3# $8.00; 10# $22.00
25# 50.00; 50# $95.00

French Fingerling dark rose red skin, yellow flesh See description on p. 81.
7260 French Fingerling, 1# $3.50; 3# $8.00; 10# $22.00
25# 50.00; 50# $95.00

Peanut lightly russeted tan skin, yellow flesh Also known as Swedish Peanut, Almond or Mandel, Peanut is packed with nutty flavor. Great for long-simmering winter stews, as it's so waxy and dense that it stays in nice chunks long after other potatoes have fallen apart. Yellow flesh is surrounded by tan lightly russeted skin. Heavy yields ensure a good supply in your root cellar, where they will keep until spring.
7275 Peanut, 1# $3.50; 3# $8.00; 10# $22.00; 25# 50.00; 50# $95.00

Rose Finn Apple buff skin with rose blush, bright yellow flesh See description on p. 81.
7290 Rose Finn Apple, 1# $3.50; 3# $8.00; 10# $22.00
25# 50.00; 50# $95.00





EARLY 65-80 days

AC Chaleur buff skin, white flesh Peter Bondeson, an Aroostook County organic farmer, introduced us to this early variety. Its smooth creamy flavor is a highlight of those first potato meals of the season. High yields of attractive round buff tubers. Excellent for early fresh market. Resistant to common scab, tuber early blight and verticillium wilt.
7305 AC Chaleur, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Caribe purple skin, white flesh I first tried Caribe as a late winter lunchtime treat. Convinced by its crispy skin and nice flavor to try growing it, I was rewarded. Sizing quickly, it produces large tubers with brilliant purple skin and snow white flesh. Medium-dry texture, excellent mashed or baked. Stores well but skin color loses brightness. Medium-sized high-yielding plant. Purplish-blue flowers. Resistant to scab and storage rot. Released by AgCanada in 1984.
7315 Caribe, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Chieftan red skin, white flesh My mouth waters thinking about this fine-flavored red roasted with onions and rosemary in balsamic vinegar and olive oil. Very good flavor, shallow eyes and nice appearance make Chieftan a popular commercial variety with excellent culinary qualities. Surpassed Norland's marketable yields by 81% in 1990 and 1991 university tests. Medium-sized plant with violet flowers. Resistant to scab, net necrosis, stem end browning and late blight.
7330 Chieftan, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Dark Red Norland dark red skin, white flesh See description on p. 81.
7345 Norland, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Eramosa buff skin, white flesh Market growers will appreciate Eramosa's early high yields of semi-flat oval tubers. Shallow eyes and nice appearance add to its appeal; looks good on the stand next to fresh peas and green onions. Medium-large plants have deep violet flowers. Moderate resistance to common scab, resistant to rhizoctonia, hollow heart and skinning. Released by AgCanada-Ontario in 1987.
7360 Eramosa, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Frontier Russet light russet skin, white flesh Frontier gives us high yields of oblong tubers, smooth and slightly russeted. Good flavor—texture not as dry as Burbank—makes this tater excellent for mashing, baking or frying. Home gardeners and market growers alike choose Frontier for its strong disease resistance and long storage.
7375 Frontier, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Onaway buff skin, white flesh Dependable all-purpose early variety that's been around since 1956. This tells me Onaway has proven attributes which make it worth growing. Staffer George Stewart always grows it for its excellent storage and fine flavor—he sautés it with chicken, broccoli and garlic. Tubers set early and size rapidly. Produces high yields from medium-to-large vigorous plants with pink flowers. Resists late blight as well as scab. Katahdin is one parent.
7390 Onaway, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Red Gold red skin, yellow flesh Red Gold continues to impress us with its delicious flavor and beautiful appearance. I grow these for that first potato, quickly steamed then tossed with butter, dill and a touch of salt. High yield and earliness make it a top choice for growers. Excels as a new potato for salads and baking. Does not store well. One of our best sellers. Introduced by AgCanada in 1987.
7405 Red Gold, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $15.00

Sangre red skin, white flesh A superb red which sizes quickly for early digging. Skin is slightly russeted and retains its color. One customer writes, "Sangre is the most beautiful red potato I have grown in 20 years. They were prolific and great to eat. Ate them up first and fast!" Excellent for new potatoes, boiled or baked. Stores very well.
7420 Sangre, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

Tobique tan skin with pink splashing, white flesh A unique potato with its pink splashes, Tobique is not readily available anywhere else. In our trials it has consistent good yields of large tubers. Its waxy texture and fine flavor add delicious body to corn chowder. Medium-sized plants with reddish-purple flowers resist verticillium wilt, fusarium storage rot and net necrosis.
7435 Tobique, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Yukon Gold yellow-buff skin, light yellow flesh See description on p. 81.
7450 Yukon Gold, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

BRADSTREET FAMILY FARM

Tiny by agribusiness standards and huge by Fedco local-grower standards, the Aroostook County Bradstreet Family Farm is one of Moose Tubers' original suppliers and is now our largest.

Seventeen-year-old Dan Bradstreet bought his first 50 acres in 1930, financed on the promise of half his seed-potato crop. He raised four old standbys: Cobbler, Katahdin, Green Mountain and Kennebec.

All labor was done by horses and men, "Big and strong back then!" Two teams of horses pulled the horse hoes, cultivators, one-row diggers and low wagons used to haul barrels full of potatoes to storage. A large crew handpulled and hoed weeds. Harvest began around Labor Day with 50 pickers in the field, trying to finish before the first snow.

Dan was the first farmer in town with a tractor, a Farmall H. Everyone around came see the "H" work—pick rocks, and haul cultivators, horse hoes and hay wagons. Today the "H" still pulls hay wagons.

Dan's son Wayne grew up farming and he runs the farm today. After completing his degree in Business Economics at the University of Maine, he returned to the farm and took up partnership with his father. With their combined expertise, they were ready to expand, increasing their varieties to include reds and adding acreage. Dan had built a new potato house in 1939 to store their crop; they built another larger one in 1965 to handle their growth.

Today the farm's list of varieties includes: Cobbler (in the Classic Collection #7060), Dark Red Norland (#7345), Chieftan (#7330), Yukon Gold (#7450), All Blue (#7465), Kennebec (#7555), Green Mountain (#7765), Red Cloud (#7795), and Red Pontiac (#7810). Wayne's favorite varieties are the reds though he sometimes finds it difficult to keep the size down for the seed trade.

Wayne now farms over 430 acres—158 in potatoes, 200 in oats underseeded in clover and 75 in hay, the Aroostook mix, alsike and timothy. He uses a typical potato rotation: a season of potatoes, then a season of oats underseeded with clover. After oat harvest the clover remains to feed the soil. Sometimes he waits a year to plowdown if a particular field is having a disease problem like scab.

"Trying to survive from year to year is my biggest challenge," says Wayne, "All it takes is one bad year to wipe you out." His main market is the garden trade, selling primarily through Maine Potato Growers. Though he would like to do more independent sales there is a high risk of not getting paid. Through the brokerage system his product is sold and he's guaranteed payment.

Wayne's son Ryan, one of six children, has chosen to return to the farm after college. He is good at the mechanical aspects of the farm and Wayne has gladly turned equipment repair over to him.

Wayne's policy is "Put out a good product, year in and year out." He has certainly done that for us, and we hope he and his son will be there in the future, too.

MID-SEASON 80 - 90 days

All Blue dark purple skin, bright purple flesh See description on p. 81.
7465 All Blue, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $20.00

All Red red skin, pinkish-red flesh See description on p. 81.
7480 All Red, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

Blue Pride purple skin, white flesh Blue Pride was one of the winners in our 1999 trials. Medium-sized upright plants produced a high yield of oblong tubers with blue-purple skin. White flesh is occasionally tinged with blue in the vascular ring. Creamy texture with just a little dryness makes Blue Pride good for baking, topped off with butter or sour cream. Excellent for long storage. Developed in Newfoundland for the tablestock market. NEW!
7495 Blue Pride, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Carola yellow skin, yellow flesh See description on p. 81.
7510 Carola, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $15.00

Chippewa cream skin, white flesh Early sizing of smooth, clean tubers makes Chippewa a regular in our garden. Delicious, creamy taste is ideal for mashed potatoes. Flattened oval tubers have shallow eyes, thin skin and moderate scab resistance. Old standard variety, released in 1933. Medium to large spreading plant with light lilac flowers.
7525 Chippewa, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Coastal Russet medium russet skin, white flesh Market gardener Herman Roberts exclaims, "Weren't they a pretty sight coming out of the ground. Lots of them!" Attractive russet tubers also taste great. Try them baked with a topping of shredded cheddar and a sprinkle of thyme. Good storage. Resistant to net necrosis and hollow heart. Tolerant to common scab. Purple flowers with cream tips are born on long peduncles well above the foliage. Russet Burbank is one parent. NEW!
7540 Coastal Russet, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Kennebec buff skin, white flesh See description on p. 82.
7555 Kennebec, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Kerr's Pink pink skin, white flesh See description on p. 82.
7570 Kerr's Pink, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

Krantz medium russet skin, white flesh Two things come to mind when I think of Krantz—really nice flavor and an exceptional display of white flowers. Its many other strengths include high yield, early tuber sizing, large vigorous plant size and extreme resistance to hollow heart, scab, and late blight. Not as dry or mealy as most russets.
7585 Krantz, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Purple Chief purple skin, white flesh Back after several years' absence. We grow this one ourselves because of its high yields of large oblong tubers with delicious flavor. Snow white flesh with a somewhat mealy texture makes Purple Chief excellent for oven fries tossed in olive oil, salt and dill. A sure winner for home or market! Large spreading plant with showy white flowers. BACK!
7600 Purple Chief, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Spud Pests

Like most crops, potatoes are affected by various insects and diseases. The Colorado potato beetle and the potato leafhopper are the most damaging insects. Some diseases, such as late blight (see page @@) can also be damaging; others are mostly cosmetic, like common scab. See ***The Potato Field Manual* #6648@** in the book section for further information or consult your local Cooperative Extension office for help on spud problems.

Colorado Potato Beetle Control

Many times I've been asked, "What do you do about the Colorado Potato Beetle?" We have several steps that work for us:

- Soil health - the key to healthy plants, hence less insect and disease pressure. Healthy plants give us healthy food!
- Crop rotation - rotating plant families in 3-5 year rotations really does help to control insect and disease problems.
- Field scouting - in home gardens, as the plants come up, handpick beetles and squish egg masses. Look under the leaves for orange egg masses. Drop beetles and larvae into a container of soapy water.
- Bt spray - Bt subspecies *tenebrionis* gives excellent control when timed properly. The first spray needs to coincide with the very first larvae hatch. Do not wait for two or more plants to have larvae. They grow fast and Bt is effective on larvae only ¼" or smaller. Timing is the key to effectiveness. Used this way, two or three sprays are all that is necessary.
- Walking the field - several days after spraying, handpick larvae that the spray missed.

Using these steps we have achieved excellent control. We believe our CPB levels are down and we are seeing more and more predatory beetles.

Bt subspecies *tenebrionis* is the most powerful and effective tool for the organic potato farmer's CPB control. Fear of resistant strains of beetles is justified. Proper use of Bt minimizes the amount used and reduces the chance of resistant insects evolving. The use of genetically engineered NewLeaf potatoes will speed us toward the day that Bt is ineffective.

Purple Viking purple skin with pink splashes, white flesh See description on p. 82.
7615 Purple Viking, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

Rose Gold rose-red skin, yellow flesh When we trialed Rose Gold we found it both beautiful and delicious. Smooth rose-red skin and creamy-textured golden-yellow flesh. Tasty roasted with onions and mushrooms in oil, vinegar and thyme. Medium-to-large tubers have moderate scab resistance. Abnaki is one parent of this medium-sized plant with dark pink flowers. Released in 1987 by AgCanada. NEW!
7630 Rose Gold, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

Ruby Red red skin, white flesh Living up to its name, Ruby Red wins the "Jewels of the Earth" award for its stunning red skin and high yields. A prodigious producer of "B" sized potatoes great for steaming and salads. Highly resistant to common scab, verticillium wilt, and late blight though susceptible to bruising. Medium-sized plant.
7645 Ruby Red, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Yellow Finn yellow skin, bright yellow flesh This variety impressed me at the first tasting: superb flavor, buttery yellow flesh and creamy texture. I really like these baked but also imagine them sautéed with onions and garlic. Yellow Finn has long been a standard variety in European specialty markets and is now gaining popularity in the U.S.
7660 Yellow Finn, 2½# $4.00; 5# $7.00; 20# $18.00; 50# $27.00

LATE more than 90 days

Bintje yellow skin, yellow flesh Each plant produces a large cluster of smooth golden-fleshed tubers with superb flavor. Simmer them with freshly dug leeks and fall spinach and enjoy the delicious rewards of your summer's labor. The world's most widely grown yellow variety, released by the Netherlands in 1910. Tubers set high on tall rapidly emerging vigorous plants. Space at 16-18".

7675 Bintje, 2½# $4.00; 5# 7.00; 20# $18.00; 50# $27.00

Blossom red skin, pink flesh What a beautiful name! Blossom is a dazzler with its magenta-red skin and pink flesh. Large tubular tubers have crispy yet smooth texture and mild but earthy flavor, excellent mashed or baked. High-yielding medium-sized spreading plant, resistant to leafhoppers and late blight.

7690 Blossom, 2½# $4.00; 5# 7.00; 20# $18.00; 50# $27.00

Blue Mac lilac-blue skin, white flesh As I dug tubers for supper, I unearthed a mound of these lilac-skinned beauties from one plant. Dry but delicious, best used for mashing, baking or frying. Round tubers have lightly netted skin, shallow eyes and white flesh. Sets heavily so is best spaced at 14-16". Vigorous upright plants are moderately resistant to late blight.

7705 Blue Mac, 2½# $3.00; 5# $6.00; 20# $13.00; 50# $16.00

Desiree red skin, yellow flesh A European variety released in 1962, Desiree has satiny rose-red skin and creamy yellow flesh. Delicious in potato pancakes with a dollop of applesauce. High yields of large long oval tubers which store moderately well. Vigorous plants with purple flowers tolerate drought. Tubers are resistant to late blight lesions. Moderately susceptible to scab.

7720 Desiree, 2½# $4.00; 5# 7.00; 20# $18.00; 50# $27.00

Elba buff skin, white flesh A late-maturing variety with high yields of large smooth tubers having moist flavorful flesh. Market grower Marybeth Fuchs described Elba as "the best boiled potato that I have ever eaten." Has shown good resistance to leafhoppers even renewing growth after they leave. Hill well as Elba sets high. Great for storage. Excellent resistance to late blight. Resistant to early blight, verticillum wilt and golden nematode.

7735 Elba, 2½# $3.00; 5# $5.00
20# $11.00; 50# $14.00

German Butterball yellow skin, yellow flesh A truly golden heirloom that's been passed down for generations; so good that it found its way into certified seed production. Deep yellow flesh with a dry mealy texture is just right for the best scalloped potatoes. Good yields of smooth, lightly russeted tubers with excellent storage have earned Butterball a place in my root cellar. Susceptibilities or resistances for these old varieties are not known. Observations and comments are welcome.

7750 Butterball, 2½# $4.00
5# 7.00; 20# $18.00
50# $27.00

Green Mountain buff skin, white flesh See description on p. 82.

7765 Green Mountain, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

NY L-235-4 white skin, white flesh Insect resistance without genetic engineering? Yes! Newly released by Bob Plaisted and Cornell University, this potato is the result of 20 years of classic plant breeding crossing the standard *S. tuberosum* with *S. berthautii* from the wild in Bolivia. L-235-4, which WoodPrairie Farm has named 'Prince Hairy', has glandular trichomes or sticky hairs that resist insects, particularly flea beetles and leafhoppers and to some extent Colorado potato beetles. In 1997, the year of the leafhopper plague, these plants had virtually no insect damage. It is good to know, in these times of genetically modified foods, that there are still classically bred cultivars coming onto the market. We anticipate an ample crop. Produces high yields of mostly large potatoes. Best for mashing or baking. Resistant to golden nematode and PVX. Moderately resistant to late blight.

7780 NY L-235-4, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

Red Cloud red skin, white flesh Red Cloud is popular for heavy yields of large, intensely red tubers. Snow-white flesh a little on the dry side makes deliciously mild fluffy baked potatoes. Retains bright skin color during long storage so you may want to grow some just for winter eating. Highly resistant to scab, resists early blight and hollow heart, tolerates heat stress. Medium-sized spreading plant with dark violet flowers.

7795 Red Cloud, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

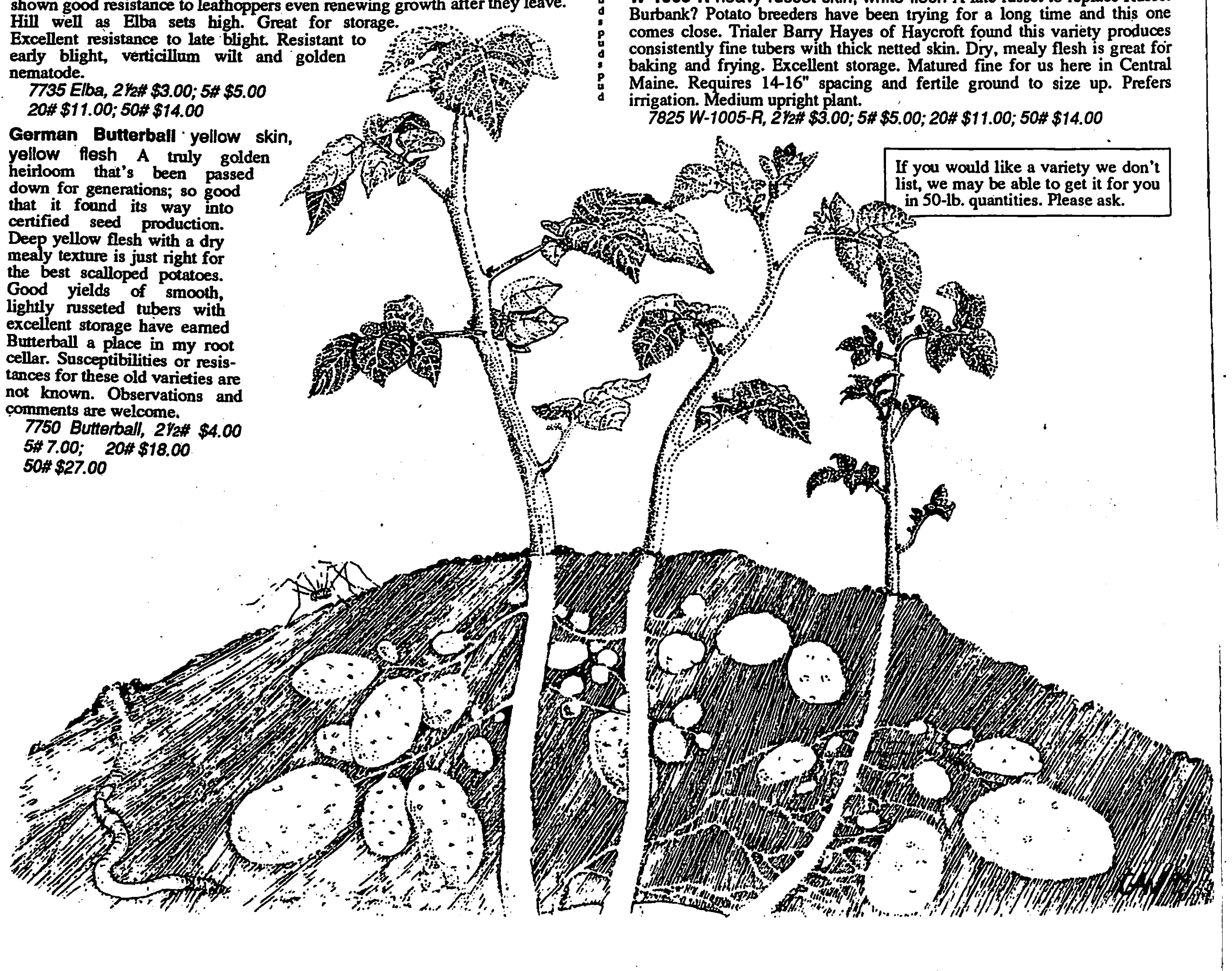
Red Pontiac red skin, white flesh An old standard with many dedicated fans. Our favorite for mashed potatoes, with distinctive flavor that brings me back for more. Also great for winter soups and usually part of my root cellar repertoire. Large plants with good drought tolerance produce high yields of large tubers. Medium-deep eyes. Unless you're raising fodder for your spud cannon, plant closely to avoid oversized tubers, which can become knobby with second growth. Known as Dakota Chief for many years.

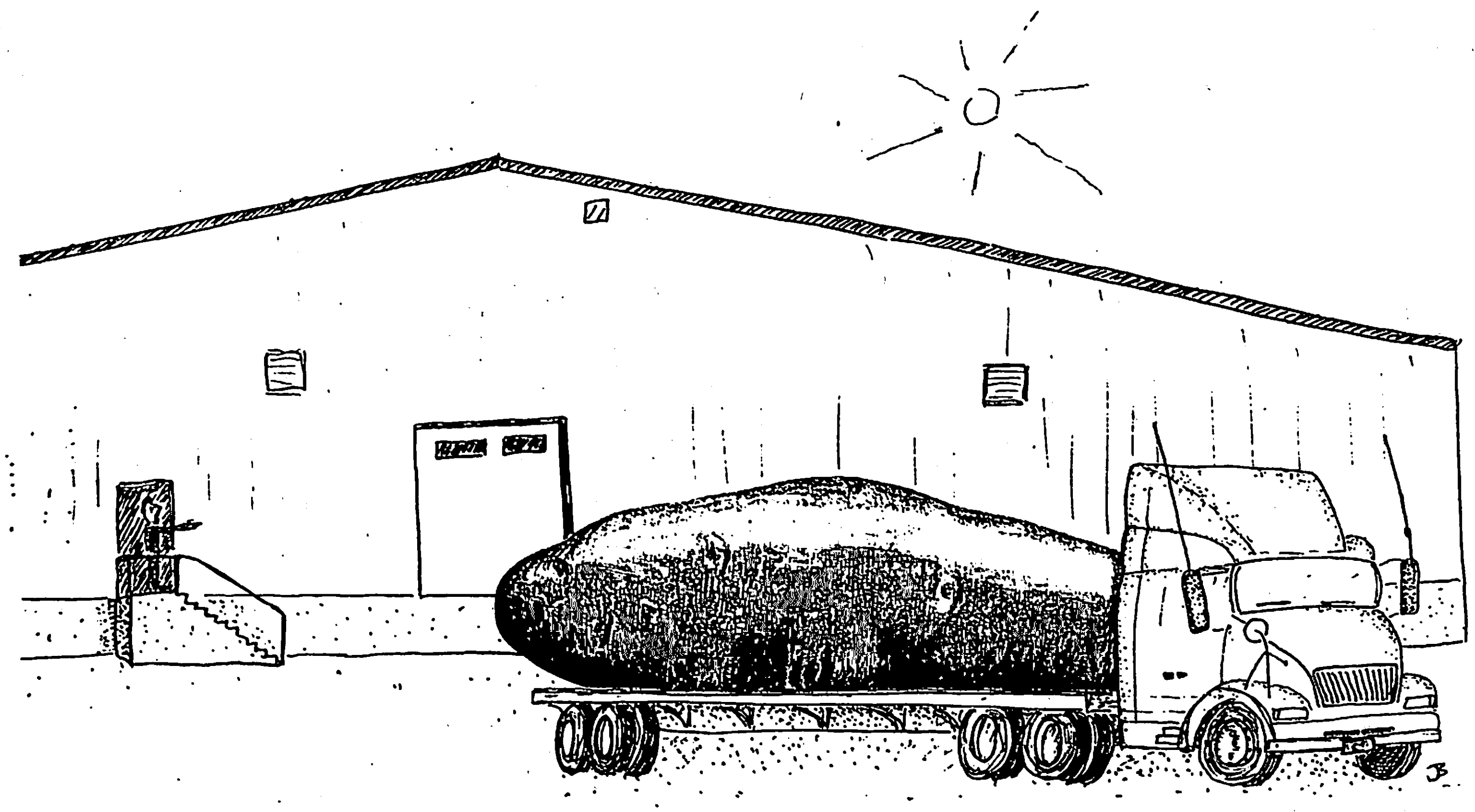
7810 Red Pontiac, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

W-1005-R heavy russet skin, white flesh A late russet to replace Russet Burbank? Potato breeders have been trying for a long time and this one comes close. Trialer Barry Hayes of Haycroft found this variety produces consistently fine tubers with thick netted skin. Dry, mealy flesh is great for baking and frying. Excellent storage. Matured fine for us here in Central Maine. Requires 14-16" spacing and fertile ground to size up. Prefers irrigation. Medium upright plant.

7825 W-1005-R, 2½# $3.00; 5# $5.00; 20# $11.00; 50# $14.00

If you would like a variety we don't list, we may be able to get it for you in 50-lb. quantities. Please ask.





Organic Growers Supply

At nine a.m. on June 29 we packed the first load into the rented trailer. Ten hours, seven trailer loads and countless pickup loads later, we had moved everything but the kitchen sink, and that because we didn't have one, out of the old warehouse on Baker Street into our new warehouse on the Upper Bellsqueeze Road behind the Fedco Seeds warehouse. Our dreams of having all of Fedco's warehouses in one location and our own running water at last realized.

At 12,500 square feet we have twice the room as the old warehouse and one of the great inventions of the 20th century, the loading dock. No more clambering up into the trailers and pushing the 2500 pound pallets to the lip for the forklift. Now what three people struggled for an hour and a half to do takes one person 40 minutes. As we grow, we are shipping out more and more on pallets and now have a facility that makes this an easy job.

The new warehouse had been in the planning stages for several years, during that time, OGS and Moose Tubers grew substantially in volume, as did the business with which we shared the location. So, with our lease expiring and our neighbors needing our old space, the new warehouse went from a dream to a necessity.

We have space enough to keep a good inventory of Organic Growers supplies and to expand our line as we find useful and necessary products. We can keep shipping year-round reasonably, keeping both prices and stress low.

David Shipman, OGS coordinator

We work closely with MOFGA to ensure that our products are acceptable. Since 1988 Fedco Seeds has been cooperating with MOFGA to offer the supplies that organic growers need. All our products are approved for organic certification.

New in Organic Growers Supply

- *Kaolin Clay*
- *Bio-Start Agricola-Beneficial Micro-organisms*
- *Humic Acid*
- *Milky Spore*
- *Hemp Gloves*
- *Custom-fitted Scythes*
- *The return of wheat*

We can't carry every product folks would like to see; there just isn't enough time and space. But we are always interested in examining new products. If there is a product you think we should offer, let us know about it. If there is something you would like us to find for you, let us know that too. If you need other cover crops, we can usually order them for you in 50 lb. lots.

Many of our rock powders are available in 2000 lb. bags and full or partial truckloads. We bring in several truckloads a year and would be happy to arrange a load or partial load for you. Call David at 873-7333.

Complete Ordering Instructions

- See page 4. Order form on p. 52G in center of catalog.

Additional Savings

- With our commitment to cooperation, we offer savings on large orders and volume purchases. We encourage you to take advantage of our discounts by joining or forming an ordering group with friends and neighbors. If you would like to put together a group order, but haven't the time or place to organize it, we will be glad to collate it and pack the orders separately in return for 7% of your order total. The total should be at least $200 to avoid additional charges.
- *Savings on multiple bags* of soil amendments. Lower prices for purchases of 10 or more bags of one amendment. Even lower prices on pallet quantities. With our volume discounts, bulk buyers will realize substantial savings. Prices are FOB Clinton.

Cover Crops at a Glance

Cat #	Description	Planting Time††	Seeding Rate† #/1000ft^2	#/acre	Best Uses	Organic Matter produced/acre
	Grasses and Grains					
8001-4	Kentucky Bluegrass	LSp or LS	1½-2#	45-65#	lawn and pasture	2500-4000#
8006-9	Smooth Brome	Sp or S	¼-¾#	30#	hay, pasture grass	
8011-4	Red Fescue	LS	2-3#	100-130#	lawn and pasture	
8016-9	Tall Fescue	ESp or S	½#	12-14#	conservation	2,000-5000#
8021-3	Orchard Grass	ESp, LS or W	½#	10-14#	pasture, hay	
8031-3	Reed Canary Grass	ESp or S	¼-½#	8-10#	pasture, conservation	
8041-4	Annual Ryegrass	ESp	½-2#	14-35#	weed suppression, trap crop	3,300-4,000#
8046-9	Perennial Ryegrass	ES	½-2#	14-35#	weed suppression, trap crop	3,300-4,000#
8051-3	CR Lawn Mix	Sp or F	4#	140#	lawn	
8056-8	Sorghum/Sudangrass	ES	1-2#	10-36#	weed suppression, trap crop, green manure, forage	4,000-5,000#
8061-3	Timothy	Sp or F	½#	12-15#	hay, pasture grass	4400#
7030	Barley	Sp	3#	60-90#	hay, weed suppression, grain	8,800#
8111-3	Japanese Buckwheat	Sp or S	2-3#	35-134#	weed suppression, trap crop for phosphorus and calcium	
8121-3	Japanese Millet	Sp	¾#	30#	weed suppression, green manure	
8131-3	Oats	ESp or F	3-4#	110#	nurse crop, weed suppression, green manure, grain	6,000-8,000# spring 2,000-4,000# fall
8141-3	OG Pennuda Oats	ESp	2-3#		grain	
8151-3	Winter Rye	F	3-4#	60-200#	weed suppression, trap crop, grain	3,000-4,000#
8161-3	Spring Wheat	ESp	4-6#	100-120#	green manure, grain	
8166-8	WinterWheat	EF	4-6#	100-120#	pasture fall and spring, grain	
	Legumes & Clovers					
8201-4	Alfalfa	Sp or F	½#	15-20#	hay, pasture, nitrogen, green manure	2,000-4,000#
8211-3	Bell Bean	ESp or F	2-4#	80-170#	nitrogen, green manure, soil conditioner, hay, vegetable, bee forage	1,800-7,200#
8216-8	Birdsfoot Trefoil	Sp, S or EF	½#	10-18#	nitrogen, hay, pasture	5,000#
8221-3	Field Pea	ESp	4#	100-220#	nitrogen, green manure, weed suppression, forage	5,100#
8231-3	Madison Hairy Vetch	F	1#	20-40#	nitrogen, green manure, soil conditioner	3,000-4,000#
8251-3	Soil-Building Mix	ESp	5#	212#	soil conditioner, green manure	8,000#
8261-3	Vetch/Rye Mix	F	2#	90#	nitrogen, green manure	3,000-4,000#
8301-4	Crimson Clover	Sp	¼-2#	9-40#	nitrogen, weed suppression, green manure	2,500-3,000#
8311-4	Mammoth Red Clover	Sp, F or W	½#	7-18#	nitrogen, hay, pasture, green manure	4,500#
8321-4	Annual White Clover	Sp	½-¾#	15-30#	soil conditioner, nitrogen, green manure	1,000-5,000#
8331-4	Dutch White Clover	Sp or F	¼#	6-14#	lawn, undersown, nitrogen, green manure	little
8341-4	NZ White Clover	Sp or F	¼#	6-14#	nitrogen, undersown, green manure	little
8351-4	Yellow Sweet Clover	Sp	1#	9-20#	nitrogen, green manure, bee forage	7,500#

†Seeding rates vary depending on use and method of seeding.
††Sp=Spring; ESp=Early spring; LSp=late spring; S=summer; ES=early summer; LS=late summer; F=fall; W=frost seeding in winter.

Why use cover crops?

Use cover crops because they feed the soil and the soil feeds us.

Agriculture is a creative imbalance in nature, a region of excess organization begun and maintained by adding energy to a place. We can add energy in several ways. We can pump oil out of the ground and pour it on the soil in its guises as herbicides, pesticides and chemical fertilizers until the soil becomes dead dirt, a method that requires ever-increasing additions of energy for ever-decreasing returns. Killing the soil instead of feeding it. Or we can try for a sustainable addition of energy, soil amendments, organic fertilizers and cover crops to provide nourishment to the soils which nourish the plants which nourish us.

Cover crops take up and store needed elements for the crops which follow them, keep weeds down, host beneficial insects, improve the structure and arability of the soil, break up clay and hardpan. Most of all, as they die back and are turned into the soil, they provide food and energy for the real farmers, the organisms that live and thrive in a healthy soil feeding and caring for the plants. Use cover crops to create a system which can keep itself going, absorbing energy from the sun, taking up energy released by dying microorganisms, releasing it in the fullness of time to new generations of crops and microorganisms. Build a sustainable agriculture guided by intelligence and care and started from seed.

Grasses and Grains

Kentucky Bluegrass *Poa pratensis* The classic lawn grass and an excellent pasture grass. Resistant to cold, its growth slows in summer heat but will continue well into the fall. Sow spring or in fall with red fescue and white clover for lawns, or with timothy and red clover for pastures. Seed at 45-65#/acre for lawns, 1½-2#/1000 sq ft.
8001: 2#/$5.75; 8002: 5#/$11.00; 8003: 25#/$50.00; 8004: 50#/$85.00

Smooth Brome *Bromus inermis* Good choice in an alfalfa mixture for fields pastured and infrequently cut. Alison and Paul say that old-timers up north swear by this deep-rooted sod-forming perennial grass. Also used for hay, erosion control, cover and soil-building. For pasture, sow 4-6# of brome with 6-10# alfalfa per acre in summer. Seed alone at 15#/acre.
8006: 2½#/$6.00; 8007: 5#/$10.00; 8008: 25#/$40.00; 8009: 50#/$75.00

Creeping Red Fescue *Fescue rubra* Excellent grass for lawns and orchards, tolerates shade, but not soggy conditions. Good for steep locations and choking out weeds. Plant in fall to avoid weed pressure. Seed at 100-130#/acre, 2-3#/1000 sq ft.
8011: 2#/$5.50; 8012: 5#/$10.50; 8013: 25#/$45.00; 8014: 50#/$75.00

Tall Fescue *F. arundinacea* Tall 3½-4' plants with numerous leaves and few seed stalks. Old stands form a thick sod with roots penetrating as deep as 5' in well-watered soils. Particularly well suited for conservation purposes; its qualities as a dairy feed are as yet insufficiently tested. Good regrowth after cutting. Seeding rates vary widely depending on method of seeding and intended uses. Seed in mid-fall or early spring at 10-25#/ acre.
8016: 2#/$5.50; 8017: 10#/$22.50; 8018: 25#/$50.00; 8019: 50#/$90.00

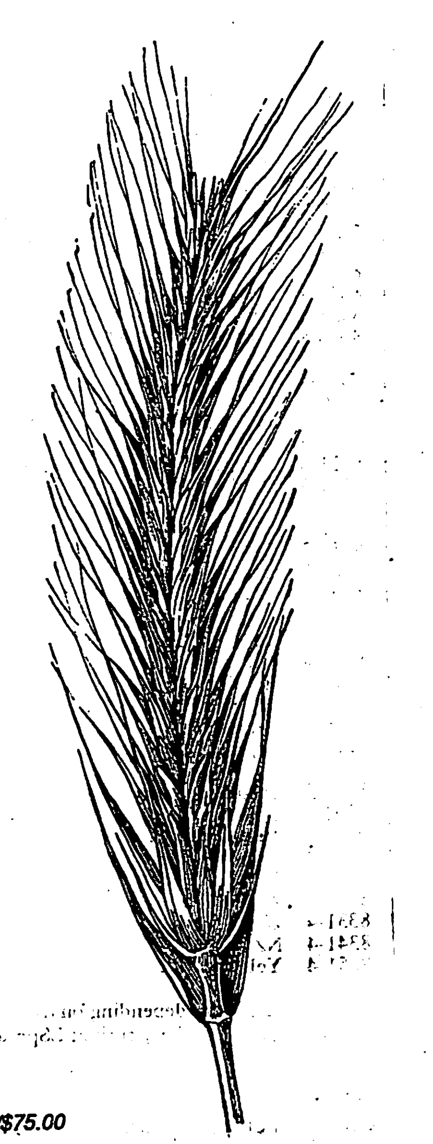
Orchard Grass *Dactylis glomerata* A long-lived perennial, grows in large clumps or tussocks. It is a vigorous grass, produces more summer regrowth than timothy or bromegrass and tolerates moderately drained soils. It can be established in spring, summer or by frost-seeding in late winter. Tall leafy plants grow rapidly even in poor soils. Its tendency to form coarse bunches can be overcome by grazing and by sowing orchard grass with red clover or alfalfa. We offer the Pennlate variety. Seed at 10#/acre or 4-6 # with 8-12# of alfalfa or red clover/acre.
8021: 2#/$5.00; 8022: 10#/$20.00; 8023: 50#/$80.00

Reed Canary Grass *Phalaris arundinacea* Vigorous, tall-growing, widely adapted to many soil conditions; it has attracted attention recently as a fast-recovering grass for intensive pasture programs. Well-suited to long-term pasturing. We carry Rival which is low in alkaloids, especially developed as palatable forage. Rival is well-adapted to the Northeast. Although long-relegated to ditches and waterways because it will tolerate standing water, reed canary grass is also extremely drought tolerant. Grows quickly in spring, heading up in late May to June. Spreads by creeping rhizomes. Seeding in late summer will reduce weed pressure. Sow with birdsfoot trefoil for long-term hay and pasture in a variety of soil conditions. Seed at 8-10#/acre.
8031: 2#/$10.00; 8032: 10#/$40.00; 8033: 50#/$160.00

Ryegrass *Lolium* spp. We now offer two varieties of ryegrass—annual and perennial. Ryegrasses tolerate a wide range of conditions and will grow well even with little fertility and in acid soils. They have dense, fibrous and deep root systems; will withstand temporary flooding and are effective at holding soil and improving tilth. Cross-pollinate easily.

Annual Ryegrass *L. multiflorum* Seeded heavily in early spring or early fall, annual rye will establish quickly in cool wet weather, provide a dense cover and outcompete weeds. Seeded thinly, it is a good companion crop, suppressing weeds as the slower germinating crops get established. Uncut, annual ryegrass will grow to 2-4', but should be kept mowed to prevent reseeding. Seed at 14-35#/acre, ½-2#/1000 sq ft.
8041: 2½#/$3.50
8042: 5#/$5.50
8043: 25#/$22.00
8044: 50#/$37.50

Perennial Ryegrass *L. perenne* A short-lived cool weather perennial. Germinates quickly and grows rapidly, suppressing weeds and allowing slower-growing companions to establish themselves. For this reason it is often used in grass mixtures, coming up quickly, then fading as the other grasses get established. Perennial ryegrass can also be used as a living mulch in Zones 5 and warmer, providing winter storm protection and weed control. Seed at 14-35#/acre, ½-2#/1000 sq ft.
8046: 2½#/$6.00
8047: 5#/$10.00
8048: 25#/$42.50; 8049: 50#/$75.00

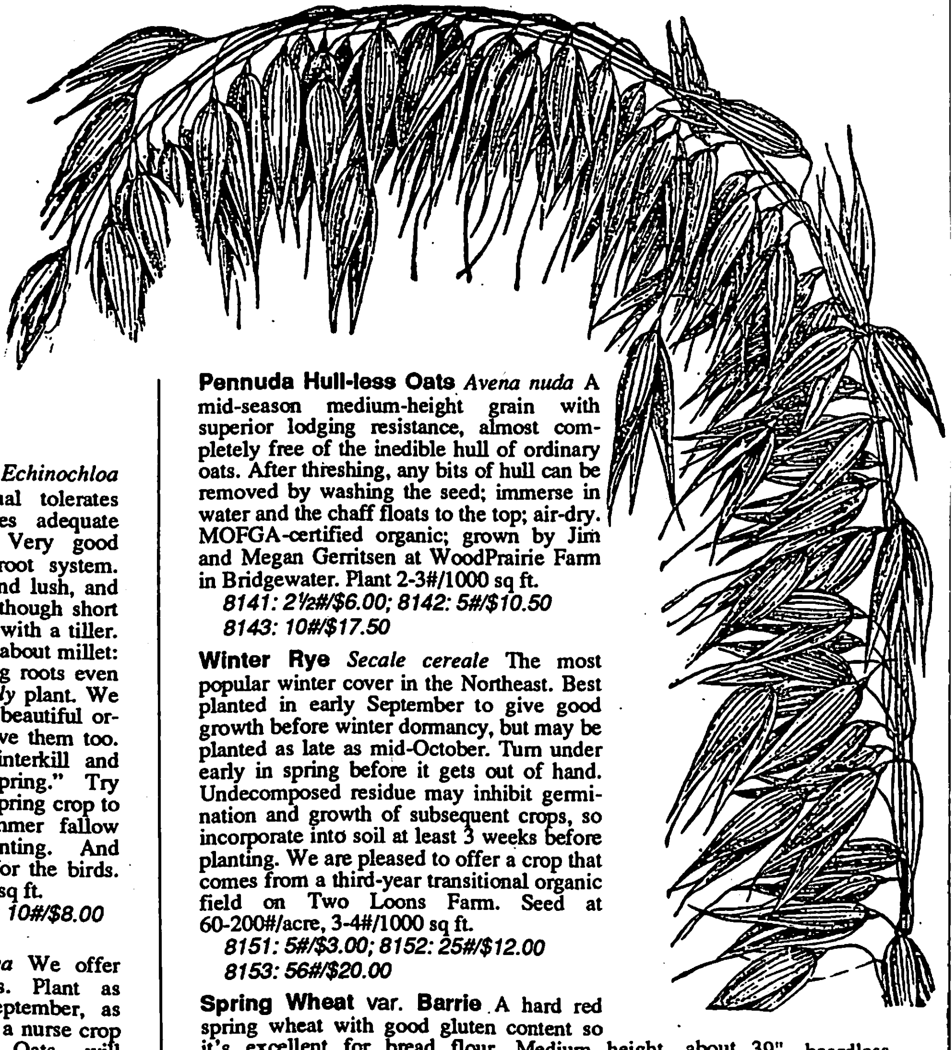


CR Lawn Mix Recommended grass seed mixture for all-purpose use in the Northeast. 50% bluegrass, 30% red fescue, 15% perennial ryegrass, and 5% white clover. Good for a range of conditions, from full sun to partial shade. Bluegrass does well in full sun, red fescue in shade. Perennial ryegrass provides quick germination and good color while the other grasses get established, and the clover adds nitrogen and interest for the bees. Seed at 140#/acre, 4#/1000 sq ft.
8051: 4#/$9.50; 8052: 17½#/$37.50; 8053: 35#/$60.00

Sorghum/Sudangrass *Sorghum* x *drummondii* Vigorous hybrid summer annual is unsurpassed at suppressing weeds. Can grow to 6' if irrigated. Tolerates mowing and can be used for hay. Tends to lodge when planted thickly in fertile soil. Plant when ground is thoroughly warm. Seed at 10-36#/acre, 1#/1000 sq ft. Use the higher rate of seeding for weed suppression.
8056: 2½#/$5.00; 8057: 10#/$15.00; 8058: 50#/$60.00

Timothy *Phleum pratense* The earliest cultivated pasture grass, first cultivated in America by a farmer who found it growing along the banks of the Piscataqua River near Portsmouth, NH. In 1914 Timothy was called "by far the most important hay grass in America." (*Forage Plants and their Culture* by Charles Piper). Best adapted to clay or loam soils with lots of moisture, it produces good yields, resists lodging and is easily cut and cured. Timothy sown with red clover provides excellent forage and strong yields. The seed may be drilled or broadcast. Seed alone or with winter wheat in the fall; in spring, seed with red clover, birdsfoot trefoil or alfalfa. Seed at a rate of 12-15#/acre alone or 9#/acre when mixed, ½#/1000 sq ft.
8061: 10#/$15.00;8062: 25#/$30.00;8063: 50#/$55.00

Robust Barley *Hordeum vulgare* See #7030 on p.78. We receive barley with the potatoes and cannot ship it until potato season. Please order on Moose Tubers order form. However, we can supply barley after Moose deadlines if supplies last.



Japanese Buckwheat *Fagopyrum esculentum* Large-seeded type. Excellent smother crop. Easy to turn into the soil. Cut and incorporate when plant is newly in flower. Makes phosphorus available for next crop and loosens clay soils. Will grow on almost any soil but prefers light well-drained soils. Responds well to fertility, holding it for subsequent crops. Tolerates more soil acidity than any other grain crop. Short maturity allows 2-3 crops per season. Killed by frost. Bees like its white flowers and beekeepers prize buckwheat honey. Seed at 35-134#/acre, 2-3#/1000 sq ft.

8111: 5#/$5.00
8112: 25#/$18.50
8113: 50#/$30.00

Japanese Millet *Echinochloa frumentacea* Tender annual tolerates low soil pH but requires adequate nitrogen and potassium. Very good smother crop. Extensive root system. Mature plants are 6' tall and lush, and require a tractor to till in, though short plants can be incorporated with a tiller. Customer Judy Rock raves about millet: "Grows well with spreading roots even in poor soil. Makes a *lovely* plant. We harvest the seed heads for beautiful ornamentals and the birds love them too. Stalks *disappear* after winterkill and cause no trouble in spring." Try over-seeding millet into a spring crop to take advantage of a summer fallow period before fall planting. And remember to plant millet for the birds. Seed at 30#/acre, 3/4#/1000 sq ft.

8121: 2½#/$3.00; 8122: 10#/$8.00
8123: 50#/$32.00

Garry Oats *Avena sativa* We offer Maine-grown Garry Oats. Plant as winter cover in early September, as grain in early spring, or as a nurse crop when seeding clover. Oats will winter-kill and hold soil with a mat of vegetation. After early-August garlic harvest, we plant oats in the garlic beds. They stay green into November and provide a ready-mulched bed in spring. Oatstraw tea nourishes the nervous system. Seed at 110#/acre, 3-4#/1000 sq ft.

8131: 5#/$3.00; 8132: 25#/$11.00
8133: 64#/$18.00

Pennuda Hull-less Oats *Avena nuda* A mid-season medium-height grain with superior lodging resistance, almost completely free of the inedible hull of ordinary oats. After threshing, any bits of hull can be removed by washing the seed; immerse in water and the chaff floats to the top; air-dry. MOFGA-certified organic; grown by Jim and Megan Gerritsen at WoodPrairie Farm in Bridgewater. Plant 2-3#/1000 sq ft.

8141: 2½#/$6.00; 8142: 5#/$10.50
8143: 10#/$17.50

Winter Rye *Secale cereale* The most popular winter cover in the Northeast. Best planted in early September to give good growth before winter dormancy, but may be planted as late as mid-October. Turn under early in spring before it gets out of hand. Undecomposed residue may inhibit germination and growth of subsequent crops, so incorporate into soil at least 3 weeks before planting. We are pleased to offer a crop that comes from a third-year transitional organic field on Two Loons Farm. Seed at 60-200#/acre, 3-4#/1000 sq ft.

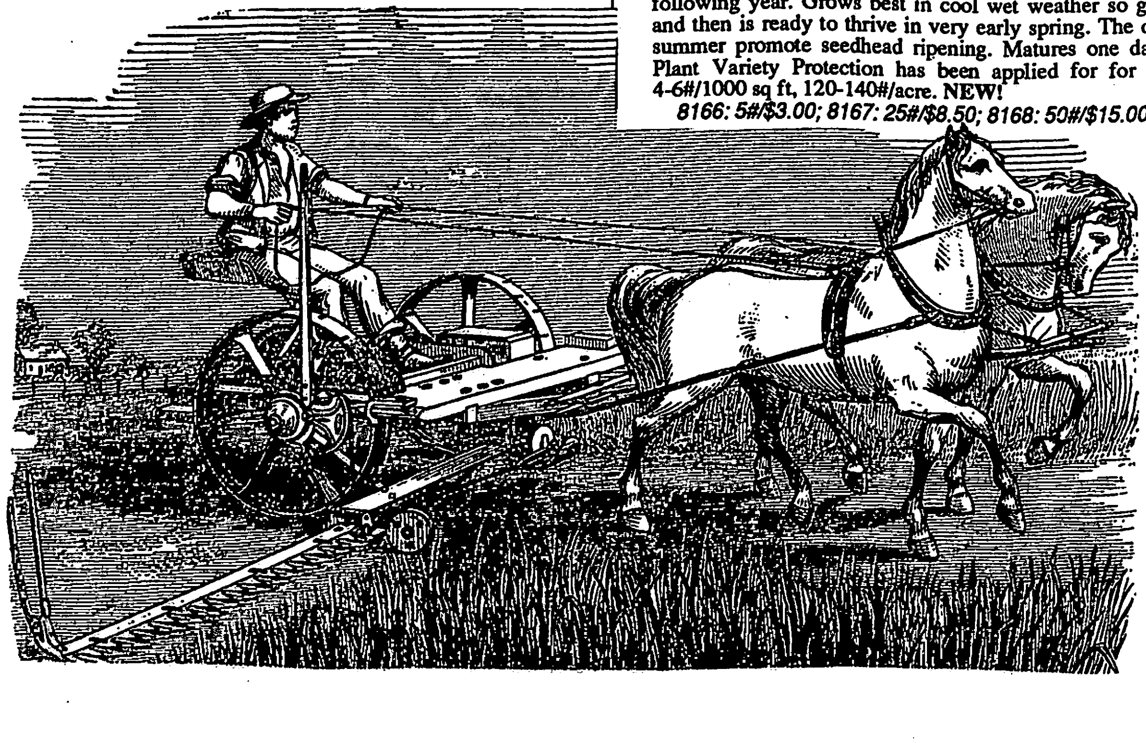
8151: 5#/$3.00; 8152: 25#/$12.00
8153: 56#/$20.00

Spring Wheat var. **Barrie** A hard red spring wheat with good gluten content so it's excellent for bread flour. Medium height, about 39", beardless. MOFGA-certified organic; grown by Jim and Megan Gerritsen at WoodPrairie Farm. They chose it from the spring wheats available for its good baking qualities. Matures 5 to 7 days later than Roblyn, the variety they previously grew. Plant in early spring. Released by Ag Canada in 1997. NEW!

8161: 5#/$8.50; 8162: 10#/$15.00; 8163: 50#/$60.00

Winter Wheat var. **Cayuga** A tall white-strawed soft white winter wheat, suitable for pastry flour. Good lodging resistance and winter survival. Plant in late August or early September in Maine for early-fall harvest the following year. Grows best in cool wet weather so gets established in fall and then is ready to thrive in very early spring. The dry warm days of late summer promote seedhead ripening. Matures one day later than Geneva. Plant Variety Protection has been applied for for this variety. Seed at 4-6#/1000 sq ft, 120-140#/acre. NEW!

8166: 5#/$3.00; 8167: 25#/$8.50; 8168: 50#/$15.00



Legumes and Clovers

Vernal Alfalfa *Medicago sativa* About the most winter-hardy variety available for perennial alfalfa fields. Alfalfa in combination with any other grass is excellent forage, good for a wide variety of soil and management conditions. Also suitable for garden use if you're planning to leave an area out of production for a season or two. Can be cut several times over the summer to make compost and to help eliminate perennial weeds. Herbalists harvest alfalfa to make a nutritious tea. Seed at 15-20#/acre, 1/2#/1000 sq ft.

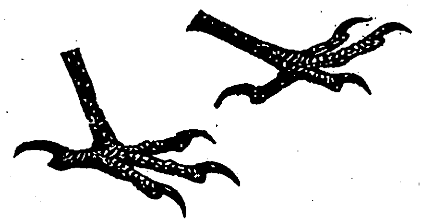
8201: ½#/$3.00; 8202: 2#/$7.00; 8203: 10#/$27.00; 8204: 50#/$120.00

Bell Bean *Vicia faba* Highly recommended. Vigorous small-seeded fava bean which can be planted in very early spring, germinating and growing well in soils between 35-45°. Also good sown in fall—grew even as the snow fell. Bell beans are an excellent choice for a green manure, providing large amounts of nitrogen and biomass. The taproot and large stems add organic matter to soils when turned under. Will tolerate a wide range of soil conditions and pH. Bell beans grow rapidly in cool weather producing as much as 100#/acre of nitrogen in just six weeks, up to 220#/acre in the course of a season. Aggressive taproot breaks up hardpan and mines the subsoil nutrients for succeeding crops. Attracts bees and beneficial insects as well as improving soils. Plant with the earliest spring crops, seeding at a rate of 80-170#/acre, 2-4#/1000 sq ft.

8211: 2½#/$4.50; 8212: 10#/$12.75; 8213: 50#/$45.00

Birdsfoot Trefoil *Lotus corniculatus* A low-growing perennial legume with stout roots and numerous slender spreading branches 6-18" long. Does not cause bloat, and retains its palatability for late-season grazing. Valuable pasture plant resistant to heat and drought yet does well in cooler climates. Allow it to reseed itself every two to three years. Grows on land too poor to support red clover or alfalfa. Does well in shallow ledgy soil and tolerates salt. Use in a mixture with timothy, smooth brome or reed canary grass for long-term hay and pasture on a wide variety of soils. Use 2-4#/acre in mixtures or seed at 10-18 #/acre, 1/2#/1000 sq ft.

8216: 2#/$7.50
8217: 10#/$30.00
8218: 50#/$130.00



Field Pea *Pisum sativum* var. *arvense* Cold-tolerant weed-smothering workhorse soil builder. Likes cool moist growing conditions and withstands heavy frost. Fixes nitrogen at 170-190#/acre and produces lots of excellent hay or pasture for livestock. Will grow in most soil types but prefers well-drained loams. Sow alone or with a nurse crop such as oats to help it stand. The early shoots of field peas are wonderful stir-fried or steamed. Seed at 100-220#/acre, 4#/1000 sq ft.

8221: 5#/$3.75; 8222: 25#/$12.00; 8223: 50#/$20.00

Madison Hairy Vetch *Vicia villosa* subsp. *villosa* Successfully and extensively tested by MOFGA farmers as well as UMO's Sustainable Agriculture program for winter hardiness in Maine. Excellent nitrogen fixation, 100+ #/acre. Plant with rye; the rye supports vetch vines in the spring and holds the soil over the winter better than the taprooted vetch. (See #8261 Vetch/Rye Mix.) Tolerates acidic soils and low fertility, but not poor drainage. Vetch is a vigorous grower, generating copious amounts of organic matter. Its vigor can create problems: Farmers using both flail mowers and sickle bar cutters reported clogging and tangling when they attempted to mow summer-sown vetch. Maine ag experts recommend later planting for better control. Use a flail mower in fall and plow under in spring before it becomes unmanageable. Seed at 20-40#/acre, 1#/1000 sq ft.

8231: 2#/$7.00; 8232: 10#/$27.50; 8233: 50#/$115.00

Soil-Building Seed Mix Maine trials have shown oats-peas-hairy vetch to be a superior soil-building seed mix. In tests, this mix has created as much as 8000# biomass/acre at maturity. The oats come up first and are pulled down by peas, which are eventually pulled down by the smothering vetch. 4" mat of vegetation should be disked or mowed and incorporated in autumn. By weight, our mix is 71% peas, 15% oats and 14% hardy Madison vetch. Seed at 212#/acre, 5#/1000 sq ft.

8251: 2½#/$3.25; 8252: 10#/$8.00; 8253: 50#/$35.00

Madison Hairy Vetch/Winter Rye Mix Superb cover mix for fall planting. Produces abundant green manure, adds nitrogen to the soil and suppresses weed growth. The rye acts as a nurse crop for the vetch, protecting it from frost damage and providing support for the vines, making subsequent mowing much easier. Excellent choice for a field that will not be planted the following spring. Mow after flowering to kill the plants, then incorporate by tilling, allow 3-4 weeks for the rye to decompose before replanting. Seed at 90#/acre, 2#/1000 sq ft.

8261: 2#/$3.25; 8262: 12#/$11.25; 8263: 45#/$37.50

Crimson Clover *Trifolium incarnatum* Rapid growth in cool weather makes this an excellent spring or fall green manure. A good choice for a cover crop in orchards because it is shade tolerant, and its fast germination and thick growth provide good weed control. In June of '96 in warm wet conditions, ours germinated in two days and made a thick dark green carpet in a week. Handsome plant with bright green leaves. Stunning crimson spikes on 18" plants make good cutflowers. More disease-resistant than other annual clovers. Will grow on most well-drained soils. Seed at 9-40#/acre, 1/4-2#/1000 sq ft.

8301: ½#/$2.75; 8302: 2#/$7.00; 8303: 10#/$30.00; 8304: 50#/$130.00

Legume Inoculation: Legumes such as beans, peas, clover and alfalfa make nitrogen from the air available to plants because their roots shelter bacteria of the genus Rhizobium, which live on the roots in a symbiotic relationship to legumes. The plant roots feed the bacteria while the bacteria take molecular nitrogen from the air and convert it into a form that the plant can use.

Different legumes require different species of rhizobia to form a successful relationship. Our legume seed is sold "raw": It has not been inoculated with the appropriate bacteria in a process called "rhizocoating." Because the seed maintains good germination longer than the bacteria remain viable, we prefer to sell fresh inoculant each year and allow you to treat the seed at the time of planting.

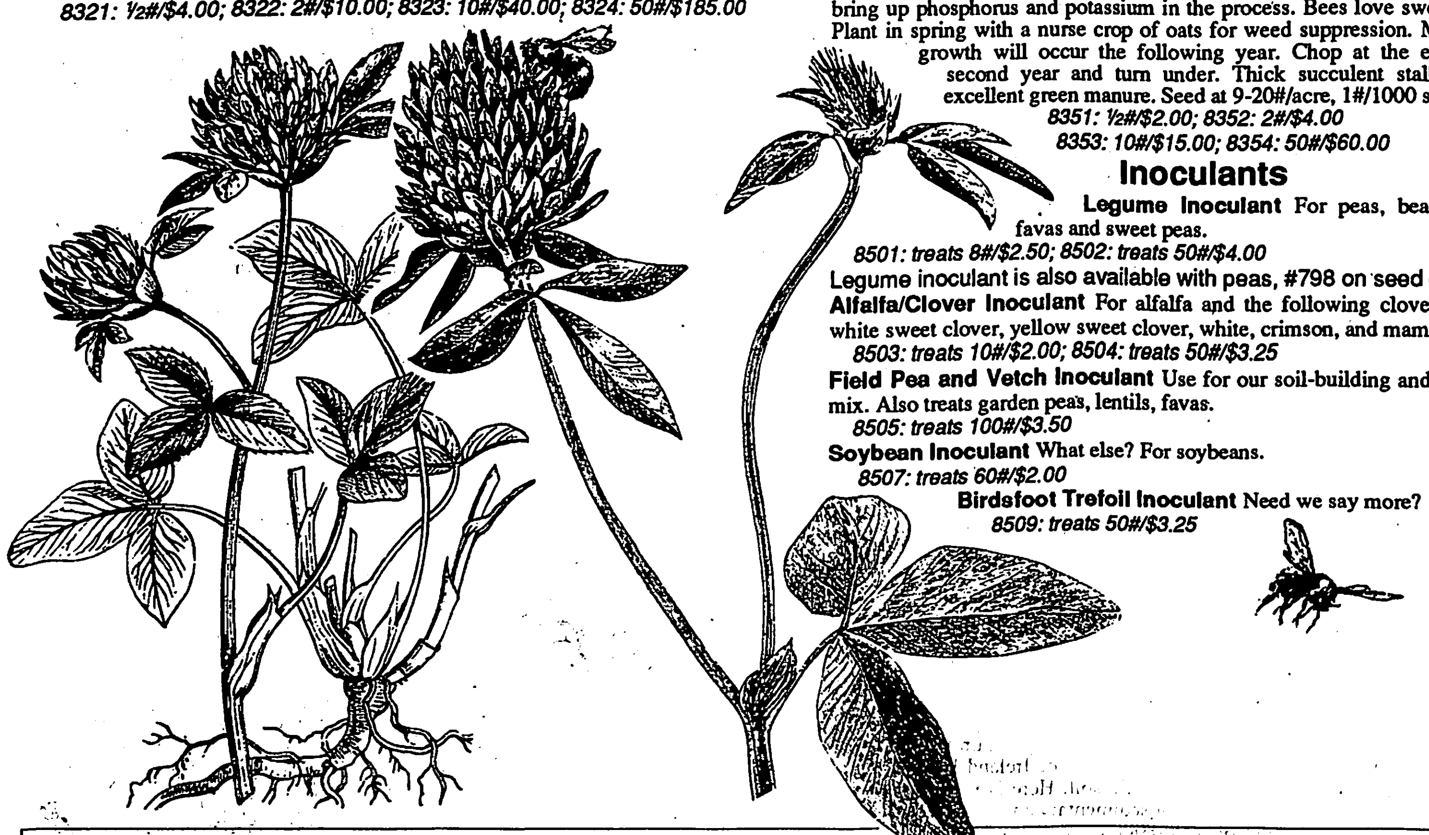
Use fresh inoculant each time you plant a legume even if you have planted inoculated seed in the same spot before. When you are ready to put the seed in the ground, moisten it with water, pour the inoculant over it and mix. Protect from direct sunlight and plant before the seed dries out or remoisten and remix.

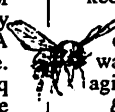
Mammoth Red Clover *Trifolium pratense* A short-lived perennial clover, best treated as a biennial, mown or grazed the first year, turned under the second year for green manure. Adds as much as 100#/acre of nitrogen in a season. Tolerates shade and can be undersown or overseeded into row crops and grains once they begin to established themselves. Deep taproot raises nutrients from the subsoil. Best planted in early spring with a nurse crop of oats. Excellent hay crop planted alone or with grasses. In multiple hay cuttings it will produce as much as 7,120#/acre of dry matter in a season. A timothy/red clover mix produces more hay per acre than either planted alone. Seed at 7-18#/acre alone or 5-8#/acre when mixed with grasses, 1/2#/1000 sq ft. Red clover blossoms, fresh or dried, make one of our favorite teas, one which cleanses the blood gently and is safe for long-term use.

8311: ½#/$2.00; 8312: 2#/$4.00; 8313: 10#/$16.00; 8314: 50#/$60.00

Annual White Sweet Clover *Melilotus albus* var. *annua* Very effective soil builder produces a large quantity of biomass and its roots penetrate even hardpan soils and crushed rock. Quick to establish compared to biennial sweet clovers. Pennsylvania stands seeded in early May stood 6' high by July. Deep taproot mines phosphorus and other minerals from the subsoil, making them available to later crops. Good bee plant. Sensitive to soil acidity—needs pH 6.2-7.2 for proper nodulation for nitrogen fixing. Poor cold tolerance, growth slows in fall. Seed at 15-30#/acre, 3/4#/1000 sq ft.

8321: ½#/$4.00; 8322: 2#/$10.00; 8323: 10#/$40.00; 8324: 50#/$185.00





Dutch White Clover *Trifolium repens* A slightly lower-growing clover (6"), less tolerant of heat and sun than New Zealand Clover. Ideal for use in garden paths where it suppresses weeds, keeps soil friable and stores up nitrogen in its roots for next year's crops. The perennial white clovers are not heavy biomass producers, an advantage for small gardeners who can keep a "living mulch" in their garden paths without requiring anything heavier than a hand scythe or lawn mower to maintain control. We like clover in our lawn. It looks lush and feeds nitrogen to the grasses. Clover was pronounced a lawn "weed" when chemical companies started encouraging the use of broadleaf herbicides. Seed at 6-14#/acre, 1/4#/1000 sq ft.

8331: ½#/$3.50; 8332: 2#/$9.50; 8333: 10#/$40.00; 8334: 50#/$170.00

New Zealand White Clover *Trifolium repens* Hardy, long-lived and self-propagating perennial with a fibrous root system which spreads easily once established. Very useful as green manure or erosion control in steep or trafficked areas. Tolerates shade, mowing and excessive moisture. Grows best in clay to loam soils. Good bee forage. More vigorous and, at 8", slightly taller than Dutch variety. Our most popular clover. Seed at 6-14#/acre, 1/4#/1000 sq ft.

8341: ½#/$2.75; 8342: 2#/$7.00; 8343: 10#/$30.00; 8344: 50#/$120.00

Yellow Sweet Clover *Melilotus officinalis* Long thick taproots do an excellent job of breaking up subsoils and improving soil aeration. They bring up phosphorus and potassium in the process. Bees love sweet clover. Plant in spring with a nurse crop of oats for weed suppression. Most of its growth will occur the following year. Chop at the end of the second year and turn under. Thick succulent stalks are an excellent green manure. Seed at 9-20#/acre, 1#/1000 sq ft.

8351: ½#/$2.00; 8352: 2#/$4.00
8353: 10#/$15.00; 8354: 50#/$60.00

Inoculants

Legume Inoculant For peas, beans, limas, favas and sweet peas.

8501: treats 8#/$2.50; 8502: treats 50#/$4.00

Legume inoculant is also available with peas, #798 on seed order.

Alfalfa/Clover Inoculant For alfalfa and the following clovers: annual white sweet clover, yellow sweet clover, white, crimson, and mammoth red.

8503: treats 10#/$2.00; 8504: treats 50#/$3.25

Field Pea and Vetch Inoculant Use for our soil-building and vetch/rye mix. Also treats garden peas, lentils, favas.

8505: treats 100#/$3.50

Soybean Inoculant What else? For soybeans.

8507: treats 60#/$2.00

Birdsfoot Trefoil Inoculant Need we say more?

8509: treats 50#/$3.25

The cost of nitrogen from legume seeds

Legumes as cover crops have the great benefit of increasing the amount of nitrogen in the soil. This chart shows the cost of adding nitrogen by using cover crops. The price per pound is based on our largest size.

	Nitrogen producing Crop	#seed/acre	price/# of seed	average #N/acre	#N/acre/# seed	Price of #N	#N/ $1.00
8204	Alfalfa	20	2.40	100	5.0	.48	2.00
8213	Bell Bean	125	0.90	145	1.16	.78	1.29
8223	Field Pea	145	0.40	172	1.19	.34	2.94
8233	Madison Hairy Vetch	30	2.30	110	3.67	.63	1.67
8304	Crimson Clover	25	2.60	100	4.00	.65	1.61
8314	Mammoth Red Clover	13	1.20	110	8.46	.14	7.14
8324	Annual White Clover	30	3.70	80	2.67	1.39	.89
8334	Dutch White Clover	10	3.40	130	13.00	.26	3.77
8344	New Zealand White Clover	10	2.40	130	13.00	.18	5.55
8354	Yellow Sweet Clover	15	1.20	130	8.67	.14	6.94

In addition to cost of seed, one must consider the time involved in preparing the seed bed and the loss from having the bed out of production.

The cost of nitrogen in fertilizers

	Fertilizer	%N	#N/50#	price/50#	Price of #N	#N/ $1.00
8702	Alfalfa Meal	2.4	1.2	16.50	12.78	0.08
8712	Blood Meal	12.0	6.0	40.00	6.17	0.16
8727	Fish Meal	8.0	4.0	32.00	8.00	0.13
8722	Fertrell 3-2-3	3.0	1.5	17.50	11.50	0.09
8737	Ocean Organics 5-4-4	5.0	2.5	35.00	12.80	0.08
	Chemical Lawn Fertilizer (Agway's for example)	10.0	5.0	10.00	2.00	0.50

Fertilizers, besides being ready to use, as opposed to waiting for the cover crop to mature, make other nutrients available to plants. But for long term additions of nitrogen, cover cropping is an excellent way to go.

Rock Powders and Soil Amendments

Thriving sustainable agriculture is built on the ground of a healthy soil. Do a soil test to determine your soil's needs before embarking on a program of soil improvement. Check with your local Cooperative Extension for testing services in your area or use our mail-in service (#9201-2).

Rock powders and soil amendments used with a program of crop rotation, composting and cover cropping will restore fertility, improve soil tilth, promote disease resistance, support the population of soil microorganisms necessary to plant growth and even help restore balance to the garden and the world around it. Used with organic fertilizers, rock powders and soil amendments will help address immediate fertility needs as well as long-term requirements of sustainable growth.

Aragonite A source of calcium that is very low in magnesium. If you have been using dolomitic limestone over the years to sweeten your soil, magnesium may be tying up other nutrients in your soil. A few years with aragonite will allow the soil to come back into balance.

8606: 5#/$2.50; 8607: 50#/$8.00
8608: 10+/$7.00each; 8609: pallet/$250.00

Azomite (0-0-2.5, 5% Ca) Contains over 67 minerals beneficial to plants and animals The name comes from the A-to-Z of Minerals Including Trace Elements. Mined in Utah and passed through a 200 mesh screen. CR has grown better tomatoes since he started using Azomite and likes it for corn and melons too. Roberta has added Azomite to her garlic beds for the past seven years. It has increased the proportion of huge heads in her harvest from about 10% to about 40%. Broadcast at 300-600# an acre. Be sure to use dust protection as it is a fine powder. Use in potting soil and compost. Especially effective as a foliar feed; allow the heavier portion to settle before adding to the sprayer. As a liquid fertilizer add 1 tsp per gallon. Approved for feed use as an anti-caking agent, feed at 1-2% of the mix. Bags range from 38-42#.

8611: 5#/$4.00; 8612: 40#/$16.00
8613: 10+/$14.25each; 8614: pallet/$600.00

Granite Meal (0-0-5) A good source of potassium in the form of potash which plants need for sugar and starch production. Unlike wood ashes or Sul-Po-Mag, granite meal can be added to the soil in large amounts without altering the pH. Greatly enhances soil structure and promotes healthier plants. Application rates are 10#/1000 sq ft, or 4000# /acre.

8631: 5#/$3.00; 8632: 50#/$9.00
8633: 10+/$8.00each; 8634: pallet/$290.00

Greensand (0-1-7, 3% Mg, 20% Fe) An heirloom soil amendment. "Greensand has been successfully used for soilbuilding for more than 100 years," according to Rodale's *Encyclopedia of Organic Gardening*. An organic source of potassium from 70-80 million-year-old marine deposits. Contains marine potash plus silica, iron oxide, magnesia, lime, phosphoric acid and as many as 30 other trace minerals. Loosens clay soils and improves sandy soils. Provides a slow release of potassium. Apply at 2-5#/100 sq ft. or 500-2000#/acre depending on soil test.

8641: 5#/$3.00; 8642: 50#/$9.00
8643: 10+/$8.00each; 8644: pallet/$300.00

Greenstone Paramagnetism is the property of minerals that causes them to be drawn towards a magnet. The atoms line up in the direction of the field. Phil Callahan, in his book *Paramagnetism*, touts the agricultural benefits of rock with high paramagnetic qualities. The monks of Ireland located their monasteries on land with highly paramagnetic soil. Here is your chance to test this for yourself. Greenstone, a mix of sedimentary and volcanic crushed rock from Ontario with readings of 6000-8000 on a CGS meter and over 70 different elements, adds life and energy to compost piles, tilth and zest to soils. Available in 5# bags and, for pickup only, 80# pails.

8646: 5#/$4.00; 8647: 80# pail ***pickup only****/$15.00*

Menafee Humates Hundreds of millions of years ago the lush rainforests and tropical swamplands of Precambrian New Mexico produced plant matter that, through millions of years of composting and burial under layers of water and sand, metamorphosed into the coal-like material of the Menafee formation. Tectonic and volcanic activity brought it back to the surface and exposed the layer for mining. Humates contain 65% humic acid in a carbon matrix to chelate minerals and nutrients making them more easily available to soil microorganisms and plants. Extensive tests at agricultural stations have shown marked crop improvement when Menafee humates were applied. Use 250 to 400#/acre/year in several applications and mix into the soil surface for best results.

8651: 5#/$3.00; 8652: 50#/$14.50
8653: 10+/$13.00each; 8654: pallet/$460.00

Savings on multiple bags of soil amendments. Soil amendments cost less when you buy 10 or more bags and are even cheaper by the pallet (2000#). The price is FOB Clinton. If you need to have them shipped, please call (207) 873-7333 for a shipping quote.

Planter's II Trace Minerals Fertilizer (0-0-.09, 5% Ca, 5% S) Mined in Colorado from the remains of the great inland sea, crushed and then pelletized with the addition of brewers yeast, Planters II is 14% silicon, 5% calcium and 5% sulfur along with 28 other trace elements necessary to plant health. Comparisons in Louisiana, Wisconsin and Missouri of hay grown in fields treated with Planters II with test fields consistently show increased yields and higher protein levels in the treated fields. Apply at a rate of 100#/acre in rows or 250#/acre broadcast to improve germination and stimulate stronger root formation and overall plant vigor.

8656: 5#/$3.00; 8657: 50#/$17.50
8658: 10+/$15.00each; 8659: pallet/$540.00

Phosphate, Black Rock (30% total phosphorus) Rock phosphate has more total phosphate than colloidal and is less dusty. Phosphate from mineral sources breaks down and becomes available slowly. A well-balanced microbiologically active soil will improve the rate of availability. Apply every four years at 5#/100 sq ft or 1000-2000#/acre depending on soil test. The mine in North Carolina where we used to get rock phosphate has closed so we've had to increase our prices because now we are trucking it all the way from Idaho.

8661: 5#/$4.00; 8662: 50#/$17.00
8663: 10+/$16.00each; 8664: pallet/$575.00

Phosphate, Colloidal (18% phosphorus, 2% readily available. 21% calcium, trace minerals) This soft-rock phosphate is an excellent choice for calcium-deficient soils; the phosphorus helps the plants take up the calcium. In addition, colloidal phosphate contains fine clays which help sandy soils retain water and nutrients. Use combined with green manures for soil rebuilding, or by itself to give plants immediate doses of phosphorus.

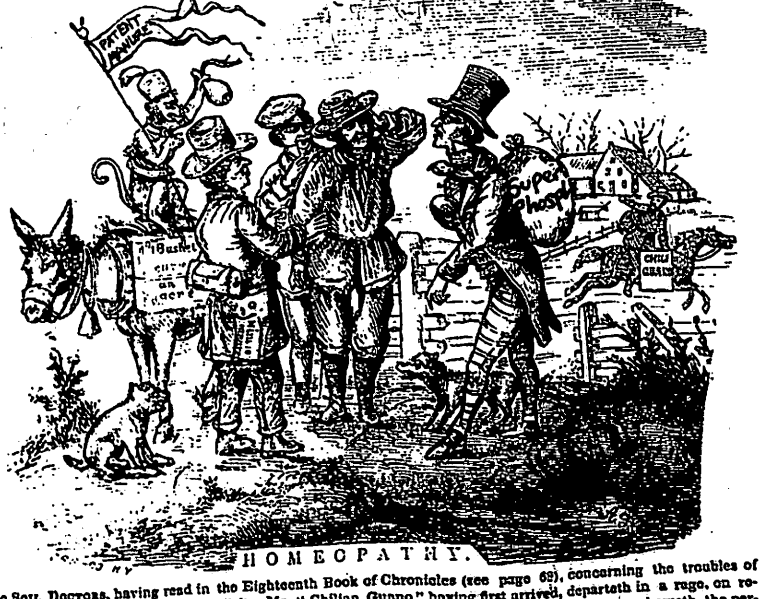
8666: 5#/$3.00; 8667: 50#/$10.00
8668: 10+/$9.00each; 8669: pallet/$300.00

Sul-Po-Mag (0-0-22, 11% Mg, 17% S) Langbeinite is a marine deposit of potassium sulfate and magnesium sulfate in soluble form. A good source of immediate potassium for depleted soil and of magnesium where calcium is abundant. Alliums like its sulfur and potatoes like its quick boost of potassium. Apply 1/2-1#/100 sq ft, 200-500#/acre depending on the results of your soil test.

8671: 5#/$4.00; 8672: 50#/$16.00
8673: 10+/$14.50each; 8674: pallet/$500.00

Sulfur Used to lower soil pH. Not fine enough to be spread as a fungicide. Apply in small amounts 1-2#/1000 sq ft, 200-400#/acre.

8677: 50#/$25.00; 8678: 10+/$22.50each; 8679: pallet/$850.00



HOMEOPATHY.

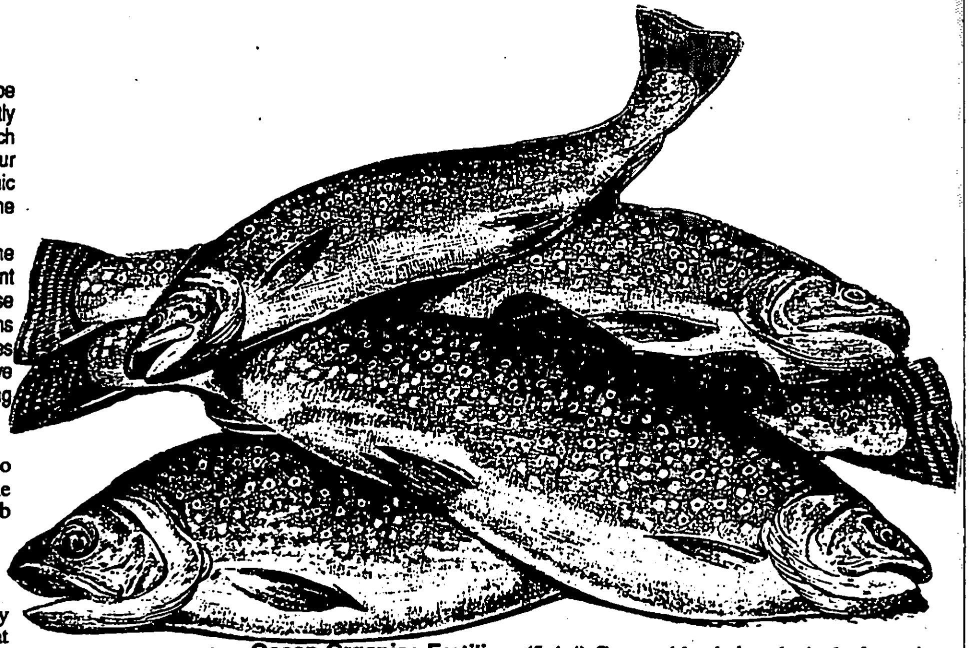
The Soil Doctors, having read in the Eighteenth Book of Chronicles (see page 68), concerning the troubles of Farmer Thomas, hasten to pay him a visit. Mr. "Chilian Guano" having first arrived, departeth in a rage, on receiving a stern rebuff from Thomas, who saw a *cabbage* in the bag upon his back......Our picture sheweth the perplexity of Farmer Thomas at the conflicting theories of those who have each an infallible cure for his sick land—from the brains whereof groweth only thistles and coarse grasses . . The "Patent Manure" *agent* sheweth conclusively that one bushel per acre of his medicine (1 teaspoon full to a square yard) will prove an infallible cure for all diseases of soils.....The "Mineral Manure" man sheweth conclusively, that only an infinitessimal quantity of *mineral* matter is wanted to render any soil immensely and infallibly vigorous and productive. He carrieth in his vest pocket amply enough for a ten-acre field, and in the casket upon his back enough to supply a whole State......The Super-phosphate man sheweth conclusively that the others are all wrong, and that phosphoric acid only is wanting in any diseased soil. He proved beyond the possibility of contradiction, that an infinitesimal amount of *burned* bones dissolved in acid, is *the* medicine, and the only medicine needed......But Thomas still *doubteth*

From the American Agriculturist, April, 1859.

Fertilizers

Fertilizers provide nitrogen and nutrients in a form that can be taken up by plants as needed. Foliar sprays get nutrients directly to the leaves and are important sources of amino acids which increase resistance to disease and to insect infestation. Our products provide an immediate boost and, unlike inorganic chemical fertilizers, additional long-term fertility, feeding both the plants and the organisms that maintain soil health.

The demand for protein to feed meat animals curtails the availability and attractiveness of animal products as an efficient source of long-lasting nitrogen. We will continue to carry these products as long as the price remains reasonable and questions about their safety can be answered; however, prudence dictates putting a strategy in place now which will provide an alternative source of nitrogen by cover-cropping with legumes and using locally produced composted manure.



Alfalfa Meal (2.6-0-2.3 avg.) Excellent alternative to blood meal as a nitrogen source. Gives plants a noticeable quick boost. It is the nitrogen source in Fedco Bulb Fertilizer. Apply at 2-3#/100 sq ft or 800#/acre.
8701: 5#/$3.50; 8702: 50#/$16.50
8703: 10+/$15.00each; 8704: pallet/$525.00

Blood Meal (12-0-0) Has the fastest release time of any organic nitrogen source. As a side dressing, apply at 3/4#/100 row ft. 3 wks after transplanting or 4 wks after seeding, or till into soil at 3-5#/100 sq ft.
8711: 5#/$7.00; 8712: 50#/$40.00

Bone Meal (1-11-0 plus calcium) Steamed ground bones. The source of the most readily available phosphorus and calcium for gardens, greenhouses and flower bulbs. Perennials love it; so do skunks. Use 1-2#/100 sq ft.
8716: 5#/$4.50; 8717: 50#/$28.00; 8718: 10+/$25.00each

Fertrell Super (3-2-3) Organic slow-release plant food made with rock phosphate, peanut meal, blood meal, bean meal, chicken manure and sulfate of potash. Apply when planting at 2-3#/100 row ft and side-dress at the same rate when plants are a few inches high. Can be used under transplants at ¼ cup per hole. Side-dress later if needed.
8721: 5#/$3.50; 8722: 50#/$17.50
8723: 10+/$15.50each; 8724: pallet/$560.00

Fish Meal (9-3-1 plus 60% protein) If smell is anything to go by, this is our most potent amendment. Excellent source of nitrogen and phosphorus. Use as a sidedressing applied at the same rate as blood meal or mixed into wetted compost to provide added nitrogen and a bacterial boost.
8726: 5#/$6.00; 8727: 50#/$35.00; 8728: 10+$32.00each

Kelp Meal Dried and ground seaweed contains trace minerals, enzymes and amino acids. An excellent source of naturally chelated elements. Brassicas respond well to it. Mix into the soil at the rate of 1#/100 sq. feet or 300-600#/acre. As an animal feed supplement it will improve production and enrich the manure for compost or crop application. Use at 1-2% of ration.
8731: 5#/$5.00; 8732: 50#/$32.00
8733: 10+/$29.00each; 8734: pallet/$1000.00

Ocean Organics Fertilizer (5-4-4) Custom-blended exclusively for us in Waldoboro. An organic mix of kelp meal, fish meal, rock phosphate, bone meal and feather meal, bound together with sea plant extract then pelletized at low temperatures to preserve the microbes and enzymes. Apply at 2-3#/100 row ft. For best results place fertilizers well below seed depth to encourage root growth.
8736: 5#/$6.50; 8737: 50#/$35.00; 8738: 10+/$32.00each

Maine fish and sea vegetables packaged in Maine for Organic Growers Supply and MOFGA-approved for use by organic growers.

Fish Emulsion (5-1-1) A by-product of the fish industry containing soluble liquid fish from head, bones and guts evaporated to a 48% solids level, treated with enzymes and stabilized with phosphoric or sulfuric acid to preserve the nitrogen. Goes into solution readily and can be used as foliar feed or part of a drip irrigation system without clogging the lines. Concentrated, use 2-4 tablespoons/gal of water for garden application or foliar spray.
8751: pt. (1#)/$4.50; 8752: gal. (9#)/$13.50
8753: 5 gal. (50#)/$55.00

Fish Emulsion with Kelp (3-2-2) Two thirds fish emulsion and one third liquid kelp provides both the N, P & K of fish emulsion and the micronutrients and growth hormones of kelp meal. Can be used as a foliar feed, in drip irrigation and for better seed germination and seedling growth. Improves plant vigor and stress-resistance, increases storage life. Use 2-4 tablespoons/gal of water.
8756: pt. (1#)/$4.50; 8757: gal. (9#)/$13.50
8758: 5 gal. (50#)/$55.00

Liquid Kelp Maine-harvested kelp, *Ascophyllum nodosom*, is a source of growth-promoting and regulating hormones. Use when starting seeds to improve seed germination and increase root-growth. As a foliar feed it will increase mineral uptake in leaves and improve photosynthesis. Crocker's Fish Oil (**#8865-8866**) used as a spreader-sticker will increase coverage and absorption. Can be applied to seed, root or leaf at a rate of 2 tablespoons/gal of water.
8761: pt. (1#)/$4.00; 8762: gal. (9#)/$13.00
8763: 5 gal. (50#)/$52.00

Wettable Seaweed Powder A highly concentrated powder. One package makes one gallon of liquid seaweed concentrate. Use the concentrate at a rate of 1 Tbsp/gallon as an excellent foliar spray containing growth hormones, trace minerals, enzymes and carbohydrates. Keep powder sealed; it absorbs water.
8775: 10.7 oz. (1#)/$9.50

Hydrolized Fish Powder (11-.25-1) A good foliar feed for seedlings, plants and fruit trees. 4# mixed with at least 20 gallons of water is a good foliar spray for orchards and fields. Apply before blossom, at early leaf stage, at fruit set, and as needed in times of stress. For small applications mix 1 Tbsp/gallon of water. Agitate while applying.
8781: 1#/$3.00; 8782: 4#/$9.50

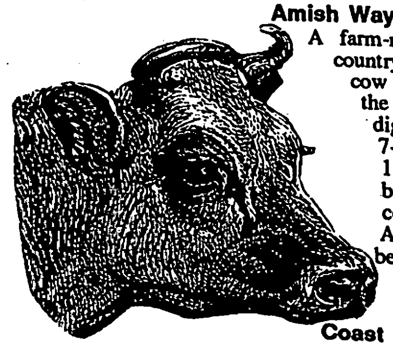
ESP-50™ Humic Acid Powder derived from Menafee Humates, small particles which will hold and transport nutrients to plants either in a foliar feed or applied to the roots directly in the furrow or through irrigation. Helps promote growth and vigor in plants. Can be applied at a rate of 8-16 oz/acre in furrows, 4-8 oz/acre mixed with 100 gals of water in drip irrigation, or 2-4 oz/acre in 100 gals of water for foliar feed. For small projects use 1 tsp/gal of water.
8783: 1#/$17.50

Compost Starters and Compost

BD Compost Starter An introduction to biodynamic composting. The starter contains six Biodynamic Compost Preparations, 502-507, plus stirred BD500 in sufficient quantity to treat up to 1½ tons of organic matter. The starter is designed for use by those just getting started in or curious about biodynamic farming. A Pfeiffer product.
8785: each (0#)/$9.50

BD Field Spray Concentrate For use just prior to turning in stubble or green manure, the spray contains BD preparations 502-507 with BD preparation 500 stirred in. Enough to treat 1 acre.
8786: each (0#)/$17.00

Biodynamic Compost Preparations We have an arrangment with the Josephine Porter Institute for Applied Bio-Dynamics to have sets containing their preparations of BD 502-507 to be drop-shipped directly to our customers. These are meant for use within three weeks of receiving them so please indicate your desired shipping date. They come with recommendations about how to store and use.
8787: set (0#)/$17.00



Amish Way Cow Manure Humus (1-1-1) A farm-made product from the Amish country of Pennsylvania. Blend of 35% cow manure with 65% organic matter, the end result of complete microbial digestion. Fussed over daily for 7-12 weeks and then subjected to 16 quality checks before being bagged. Has a neutral pH and good conductivity for cation exchange. Add to seed-starting mixture or to beds.
8791: 40#/$8.50
8792: 10+/$7.50each

Coast of Maine Quoddy Blend Compost (1-0-0) New blend of composted lobster, shrimp, crab, salmon and cow manure. Rich in micro-nutrients. Ideal for conditioning beds. The bag makes it pretty enough to give as a gift.
8796: 40#/$7.50; 8797: 10+/$6.50each

Coast of Maine Penobscot Blend Compost & Peat (.8-.1-.1) 75% composted salmon, mussels and wild blueberries with 25% sphagnum moss peat. Perfect for mulching trees and shrubs, top-dressing lawns. Adds nutrients and structure to planting mixes.
8798: 40#/$7.50; 8799: 10+/$6.50each

Deer Repellent

We used to sell a fairly effective deer repellent made from blood meal and cayenne pepper. Unfortunately the manufacturer went out of business partly because of the necessity to register the product as a pesticide in each state in which it was sold.

However, there is nothing to stop you from putting together your own mixture of blood meal (#8711) and hot pepper. The product was a powder which one spread around the plants one wanted to protect, or put into cloth bags to hang from trees. Be sure to hang it high enough to keep out of reach of dogs, as our neighborhood dogs, at least, found it fascinating.

Paul and Alison, who in years past have lost quite a lot of produce to the deer, had good sucess this year spraying a mixture of Garlic Barrier (#8861) and Fish Oil (#8865). They tried to spray after each rain, yet reported protection even when they didn't get to it immediately.

Shipping weight is in parentheses (#).

Plant Protection & Pest Control

All these products, ranging from preventive measures such as bat houses, to organic last resorts such as copper or Colorado Potato Beetle Beater, are commonly used in organic farming and gardening. We welcome your suggestions about successful low-impact pest control methods or products. Use our **#9310 Dustin-Mizer** or **#9314 Backpack** and **#9315 Pump Sprayers**, to apply these products.

Kocide 2000 Copper Hydroxide Copper is a strong broad-spectrum fungicide and should be used only for specific problems after all other attempts have failed. Kocide contains the equivalent of 35% metallic copper in micronized form, increasing coverage and penetration. Copper hydroxide will penetrate leaf tissue to kill bacterial and fungal spores, but may cause leaf damage. Superior adherence and coverage. Apply in a solution with Crocker's Fish Oil (**#8865-8866**) spreader-sticker for better wetting and adhesion. Recommended rates of application 3/4-3#/acre depending on crop treated.
8801: 3#/$20.00

Micronized Sulfur Used to control scab, powdery mildew and leafspot. Sulfur is not water soluble; the smaller the particle the better it stays in suspension. These particles are less than five microns. To apply, thoroughly mix powder with water and keep the mix agitated constantly or apply as a powder with the Dustin-Mizer (**#9310**.)
8811: 1#/$6.50; 8812: 4#/$12.00; 8813: 30#/$20.00

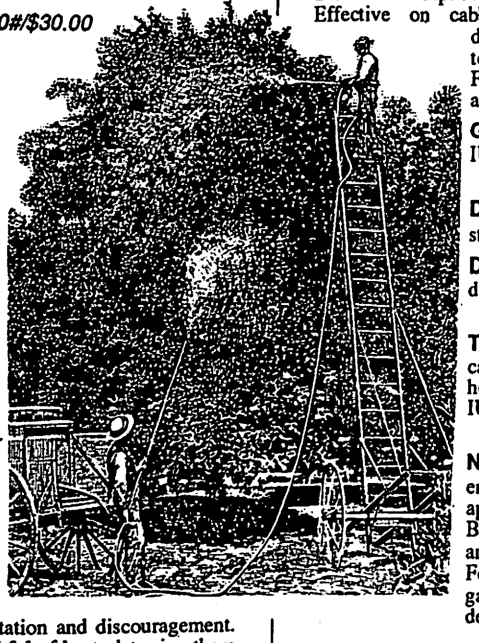
T-22 Biological Fungicide Beneficial fungus *Trichoderma harzianum* controls seed rot and damping off by colonizing plant roots and protecting them against fungus-borne root diseases including pythium, fusarium and rhizoctonia. Expensive, but effective. Use as an inoculant on potato seed pieces and cabbage, bean, cucumber, tomato, corn and other crop seeds. Application rates range from 1/2 oz/100# for potatoes to 4-10 oz/100# for seed, higher rates for larger seed.
8821: 1#/$35.00

BioStart™ Agricola A blend of three strains of beneficial bacilli formulated to give plants a boost: *B. mycoides* produces enzymes to degrade organic matter making nutrients more readily available to the roots, *B. laterosporus* stimulates root growth and *B. cereus* produces chitinase, an enzyme that breaks down chitin, the main component of nematode egg shells and the cell walls of pathogenic fungi. In potato field trials in California, Idaho and Utah, inoculation with BioStart Agricola showed an increased yield of at least 10%. Tests in South Africa demonstrated increased seedling sizes in greenhouse trials. Recommended as a root drench for trees, crops and lawns. For larger vegetable yields apply 1-2 quarts per acre in four applications during the growing cycle. Will keep for eighteen months without refrigeration. OMRI approved. Best applied with a microbial fertilizer—a little something to get them going, either NutriStart, see below, or a homemade brew of yeast extracts and molasses or other carbohydrates. NEW!
8826: 1 gal. (9#)/$50.00

NutriStart™ Microbial fertilizer, a blend of high quality yeast extracts, carbohydrates and other nutrients enhances the germination of bacterial spores. Used in combination with applications of beneficial bacteria, it will jump start their growth and reproduction. Because beneficial bacteria work by competitive exclusion, colonizing the root zone and keeping out the harmful fungi responsible for rhizoctonia, fusarium wilt and other banes, providing these beneficials an abundant food supply early in the growing season is key to a successful application. NEW!
8827: kilogram tub (2#)/$52.50

Shipping weight is in parentheses (#).

Diatomaceous Earth Fine powder of microscopic diatom shells, the hard edges of the diatoms abrade the waxy surface of insects and slugs, dehydrating them. Sprinkle around the base of plants and seedlings to protect them from sow bugs, pill bugs, slugs and cabbage root fly or dust on the undersides of plants when they are wet from dew or freshly watered in cases of thrips damage. Its action is mechanical and affects both beneficials and pests, so use sparingly and only for specific problems. Excellent protection for stored grain and seed. DE comes in two grades: Pool filter grade, which is chemically treated and partially melted, is a respiratory hazard for mammals and *is not to be used* for insect control. Our natural grade does not pose a respiratory hazard and is the right type to use for insect control.
8851: 1#/$6.00; 8852: 4#/$10.00; 8853: 50#/$30.00



Kaolin Clay has been shown to have some effectiveness against plum curculio. Mix in water and spray on the tree just at petal-fall, coating the leaves and new fruit with a ghostly white skin. The particles attach to the beetles, irritating and disorienting them, preventing them from feeding and from laying eggs. Also effective against thrips, leafhoppers and other pests and diseases of fruits and vegetables, according to USDA tests. Not only that, but kaolin seems to enhance photosynthesis, reduce leaf stress and improve fruit color. Mix 50# of clay, spreader-sticker (Crocker's Fish Oil or other), and compost tea with 100-200 gals of water or 3 cups of clay/5 gal water. Add the clay to the water and not otherwise. Spray at petal-fall and for several weeks after, keeping the tree completely coated through the laying season. NEW!
8854: 5#/$3.00; 8855: 50#/$15.00

Hot Pepper Wax repellent comes in two formulations for an all-natural way to control insects or animals. Capsaicin, the "hot" in hot peppers, is the active ingredient; mixed with waxes it sticks to the surface of plants and rubs off on insects like thrips, leafhoppers, whiteflies and aphids as they attempt to feed, causing irritation and discouragement. Animals who nibble on coated plants get a mouthful of heat, deterring them from further grazing. Effective on deer, squirrels, rabbits, woodchucks, even cats and dogs. The waxes in the spray hold the hot pepper to plants for up to 21 days and are not washed off by rain. Does not effect the taste of fruits and vegetables. Spray once a week until a level of control is achieved and every two weeks thereafter. Concentrated, mix 8 tablespoons/gal of water. NEW!
8856: For insects 1 pt. (1#)/$13.00
8857: For animals 1 pt. (1#)/$13.00

Garlic Barrier 100% garlic juice—just mix with water and spray to repel insects. An application when the cabbage moths appeared kept our broccoli stir-fries truly vegetarian. Several studies have suggested that garlic oil has fungicidal properties. One warning: this stuff stinks, is best mixed outdoors. The odor doesn't last and the taste of the vegetables is not affected. One pint covers 40,000 sq. feet. Gallon is more concentrated and covers 20 acres.
8861: 1 pt. (1#)/$7.50; 8862: 1 qt. (2#)/$15.00
8863: 1 gal. (9#)/$75.00

Crocker's Fish Oil A dormant oil and spreader-sticker rich in nutrients and enhancers. It increases the absorption of foliar nutrients. Spraying with a mixture of garlic barrier and fish oil improves storage quality in onions; sprayed on garlic, the mixture controls thrips. Oregon orchardists have increased production using Crocker's Fish Oil as a dormant spray. Approved for use by Oregon Tilth.
8865: 1 gal. (9#)/$18.00; 8866: 5 gal. (50#)/$75.00

Dormant Oil 96% canola oil concentrate, emulisfiable in water to control all stages of insects including egg clusters, mites and scales. Can be used indoors or out, on trees, fruits, vegetables and bedding plants. Recommended for aphids, apple red bugs, corn rootworms, earworms, leafminers, mealybugs and mites as well as others. The oil smothers the little beasts, clogging their intake ports. Mix at a rate of 4 tsp/qt of water.
8869: 24 oz. conc (2#)/$10.00

Insecticidal Soap Available in ready-to-use applicators or concentrated form. Biodegradable contact insecticide effectively controls mites, aphids, earwigs, lace bugs, leafhoppers, mealybugs, scales, spider mites, thrips, tent caterpillars and whiteflies. Fatty acids penetrate insect's soft outer membrane and disrupt normal functions. Mix the concentrate with alcohol to increase penetration. Hard water can reduce soap's effectiveness. Use 2 oz concentrate/gal water.
8871: 12 oz. (1#)/$3.00
8872: 24 oz. (2#)/$5.00
8873: 24 oz. conc. (2#)/$8.00
8874: 1 gal. (9#)/$42.50

Milky Spore We have Japanese Beetles and I want to get rid of them. Three years of picking them off the rose petals, filazels, grape leaves, hollyhocks and evening primroses doesn't seem to have made a dent. The only way we get to enjoy our white rugosa roses is to stand over them as a bloom opens and remove the voracious little beasts who appear on the petals instantly. Talking to some customers during pickup last year convinced me to go with Milky Spore. They said it took several years, but they are seeing results. One application is said to be sufficient. Apply one teaspoon every 4' in 4' rows throughout the infested area. NEW!
8881: 10 oz. (1#)/$25.00; 8882: 40 oz. (3#)/$75.00

DiPel *Bt* subsp. *kurstaki* is the active ingredient in this mixable powder. Effective on cabbage worm, cabbage looper, larvae of codling, diamondback and gypsy moths; spruce budworm and tomato hornworm. Apply in a solution with Crocker's Fish Oil (#8865-8866) spreader-sticker for better wetting and adhesion.

Garden strength wettable powder Approx 4,320 IU/mg.
8901: 4 oz. (1#)/$8.50

Dry Flowable wettable powder Commercial strength, approx 32,000 IU/mg. *8902: 1#/$21.50*

Dipel 150. Garden strength Ready to use—apply dust directly over the plants; do not mix with water.
8903: 4#/$10.00

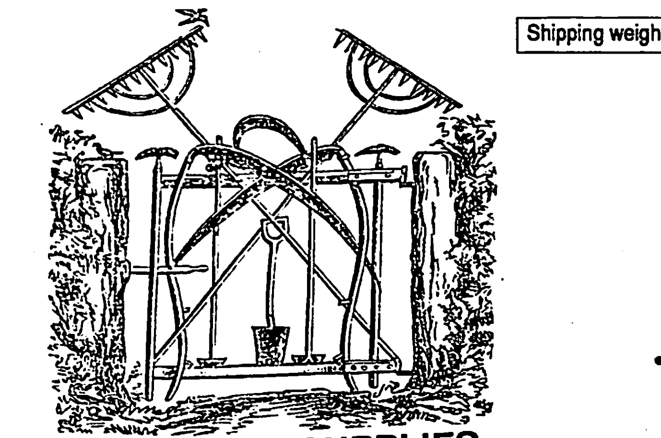
Thuricide Liquid Bt for control of cabbage looper, cabbage worm, corn borer, tomato fruitworm and tomato hornworm. *Bt* subsp. *kurstaki* with a potency of 4000 IU/mg. Use 2-4 teaspoons/gal.
8906: 8 oz. (1#)/$9.00; 8907: 1 pt. (1#)/$16.00

Novador *Bt* subsp. *tenebrionis* The only non-genetically engineered Bt for Colorado Potato Beetles. The application rate is 1 1/2 oz/gal water. For gardens, the Bonide Company is now repackaging Novador in 8 oz and pint containers as **Colorado Potato Beetle Beater.** For larger farms we have Novador in 2 1/2 gallon and 6 gallon pails. Application rates vary from 1-4 qts/acre depending on the size of the larval population.
8911: 8 oz. (1#)/$12.50; 8912: 1 pt. (1#)/$20.00
8913: 2 1/2 gal. (22#)/$80.00
8914: 6 gal. (55#)/$175.00

***Bacillus thuringiensis*, better known as Bt**, is a biological insect control. Bt bacteria produce endotoxins (toxic proteins) which attack the digestive systems of insect larvae. Leaf-eating larvae and caterpillars ingest the protein which dissolves their intestinal walls and paralyzes their digestive systems. They stop feeding soon after ingestion and die within 2-3 days. Different varieties of Bt attack different insect species. *Bt* subspecies *kurstaki* is effective against cabbage worms, leaf-eating caterpillars and hornworms. *Bt* subs. *tenebrionis* are effective against Colorado potato beetles and elm leaf beetles. Apply when larvae first appear. Effective use requires uniform coverage of the plant's surface to ensure exposure. Because it is species specific, Bt won't harm beneficial insects. Breaks down quickly and can be used right up to harvesting. Follow directions on the package.

WHAT MAKES THOSE PARANOIDS SO COMPULSIVE ABOUT ATRAZINE ?
I DUNNO... MUST BE SOMETHING IN THEIR WATER!
AG BOARD
KIRK ©92

Shipping weight is in parentheses (#).



TOOLS AND SUPPLIES

We offer the best values available in seed-starting supplies, season extenders, tools and gardener care. We have trialed these items and use many regularly. Each has met our strict criteria for price, quality and durability. Many are the result of customer requests. We welcome your suggestions for further additions.

Seed-Starting Supplies

Cedar Seedling Boxes Made in Maine from native cedar. These 6x9x3" seed-starting boxes offer a durable reusable alternative to Kord Paks for starting small lots of seedlings. Package of 5 boxes. Easy assembly, nails and instructions included.
9001: Pkg of 5 (1#)/$7.50

Cedar Plant Tray Maine-made from native cedar. 11x22x2 3/4" durable reuseable tray is a great alternative to plastic. Easy assembly, nails and instructions included.
9002: (1#)/$5.50

Pot Maker Recycle your Sunday paper into an alternative to peat pots with this handy wooden gadget. Simple to use: Wrap a strip of paper 3" wide and 9" long around the core, press, twist, and you have an instant paper pot that will hold up until you are ready to transplant.
9004: (1#)/$12.50

Kord Paks Handy flats the same size as plastic "six-packs" but without the dividers. Made of recycled cardboard fiber and breathe much like clay pots. Ample space allows for healthy root development. 4 drain holes in each. At 6 3/4x5 1/4 x2 3/4", 6 nest in a 1020 Tray.
9005: 6 (1#)/$2.00; 9006: 100 (5#)/$24.00; 9007: 500 (35#)/$90.00

Jiffy Pots Eliminate transplant shock! Peat Jiffy Pots can be put directly in the ground without disturbing seedlings. We stock four sizes.

2" Round Convenient for small seedlings and for folks with limited space.
9008: 50 (1#)/$3.00; 9009: 4000 (35#)/$155.00

3" Round Good for tomatoes, brassicas and melons.
9010: 50 (1#)/$4.50; 9011: 1500 (35#)/$100.00

4" Round For squashes and other late season plants.
9012: 50 (1#)/$6.00; 9013: 1000 (35#)/$100.00

3" Square Can be more tightly packed than round pots. Saves space and conserves moisture.
9014: 36 (1#)/$4.50; 9015: 1000 (35#)/$85.00

Plug Flats Available in 3 sizes: 38, 50 or 98 round cells. Also known as Pro Trays. Fit into standard 1020 Trays for easy handling in the greenhouse. Made of lightweight black plastic with bottom drain holes.

	Cells	Width	Depth
9016-9017	38	2.19"	2.31"
9018-9019	50	1.88"	2.31"
9020-9021	98	1.38"	1.50"

9016, 9018, 9020: 3 (1#)/$4.00
9017, 9019, 9021: 100 (30#) $70.00

"1020" Plant Trays and Domes

Plant Trays Plastic trays with drain holes, used to start seedlings in the greenhouse. 10 1/2x21x2 1/4" and hold at least 18 3" jiffy pots. When the pots are damp we cram in several more.
9022: 3 (1#)/$3.50; 9023: 100 (30#)/$67.00

Domes Fit over 1020 Trays to create a miniature greenhouse for seedlings. Keep soil from drying out, speed germination, and ensure good early growth.
9024: 3 (1#)/$7.00; 9025: 50 (30#)/$90.00

Heavy Duty Plant Tray These sturdy 11x22x2 3/4" plastic trays will last for years and are strong enough to hold 50 2" soil blocks without strain. Good for windowsills because they have no drain holes. Store out of sunlight when not in use; will fade and weaken if left in the sun over the summer.
9026: 1 (1#)/$6.50; 9027: 10 (10#)/$60.00

Heavy Duty Dome Sturdy domes from the supplier of our heavy-duty plant trays. Will last for years with reasonable care. *9028: 1 (1#)/$3.00; 9029: 10 (10#)/$25.00*

Heavy Duty Plant Tray & Dome Combo
9030: 1 (2#)/$9.00; 9031: 10 (20#)/$85.00

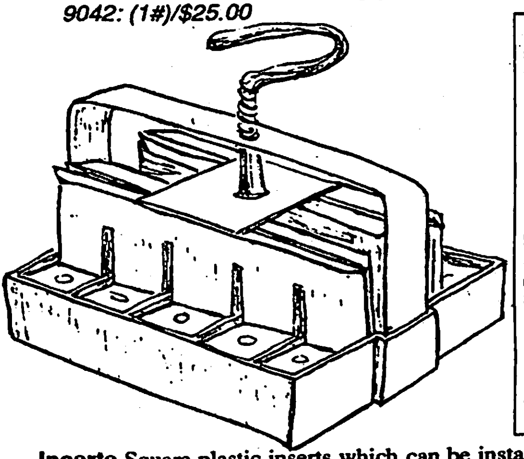
Seed Tray Heater Chrome steel frame holds seedling trays above the heating element which plugs directly into a regular 110 volt outlet. Raises soil temperature 10-15° and speeds germination and growth. Two sizes.
9036: 15 1/4x21" (10#)/$47.50; 9037: 17x38" (15#)/$80.00

Ladbrooke Soil Blockers

The genuine article, made in England by Ladbrooke Ltd. There are many imitations on the market that can save you a few dollars, but the quality is not as good. The soil block system allows for easy transplanting and eliminates root spiraling.

Mini 4 Blocker Makes four 2" soil blocks in one stroke.
9041: (1#)/$30.00

Micro 20 Blocker Makes 20 blocks per stroke in a 3x4" area. Use when your space is limited or when you want a large number of transplants. Micro-blocks are easier to warm, speeding germination. Can be inserted into 2" soil blocks to continue seedling growth.
9042: (1#)/$25.00



A successful recipe for soil block mix (with thanks to Eliot Coleman): Mix 2 10 qt. buckets peat or Peat Free with 1/2 cup of lime and 2 cups of azomite. Add 2 buckets of sand, 2 more buckets of peat, 1 cup of rock phosphate, 1 cup of greensand, 1 cup of bloodmeal and 1 more cup of azomite. Mix well. Add 1 bucket of compost and 1 bucket of soil and mix again. Add water until the mixture is spongy but not soggy and start making blocks.

Inserts Square plastic inserts which can be installed into the 2" soil blocks to make the blocks ready to receive micro-blocks. Pry out the plastic nipple and screw in the inserts.
9043: Pkg of four with hardware (1#)/$6.00

Maxi 1 Blocker Makes one 4" block per stroke. Each block has a cube-shaped depression in the top to accomodate 2" blocks. Allows seedlings going out late to continue root growth and development. Especially good for tomatoes and peppers.
9044: (3#)/$105.00

Multi 12 Floor Blocker Makes 12 2" blocks at one time. Very helpful for large production. Long handle means no stoop work.
9045: (10#)/$180.00

Multi 20 Floor Blocker Makes 20 1 1/2" blocks at one time. Great space-saver for starting lettuce and tender greens.
9046: (10#)/$180.00

Potting Soil

Komplete Potting Mix (.2-1-.4, 1% Ca) A combination of humus-type peat and 20% compost. Uncompressed and ready to use, easy to handle, to start seeds in, and to keep moist. Screened at 1/2". Some applications may need lightening materials. Slightly acidic. Maine made, MOFGA approved.
9051: 10 qt. (12#)/$5.00; 9052: 60 qt. (60#)/$15.00
9053: 10+/$14.00

Komplete Light Potting Mix Living Acres creates a lighter potting mix by using sphagnum peat instead of humus peat and adding some perlite. Same 20% compost content as regular Komplete. Use if you want a more airy mix with less tendency to crust over. Maine made, MOFGA approved.
9056: 10 qt. (10#)/$5.00; 9057: 60 qt. (50#)/$15.00
9058: 10+/$14.00

Peat Free Organic, biodegradable and environmentally sound substitute for peat moss. Compressed brick of coconut fibers that swells to eight or nine times its original size when placed in hot water. The fibers are quite short, but have excellent moisture retention capacity. Use in potting mixes or to add organic matter to your soil. Improves aeration and nutrient retention. Easy to store; three bricks make the equivalent of a half-bale of peat moss. Peat Free has been commended by the Wildlife Conservation Society as ecologically sustainable and supporting good conservation.
9066: Pkg of 3 (3#)/$7.00

Shipping weight is in parentheses (#).

Garden Fabrics

Trellis Plus 7" reach-through mesh with a strand strength of 60 lb. for tomatoes, climbing beans, peas, cucumbers and luffas. Weave a strand of fence wire through the top for extra support. Will last for many years if you can avoid "the tangles"!
9071: 5x30' (0#)/$7.00; 9072: 5x120' (1#)/$20.00

Yard-Tek Weedshield Fabric Sturdy bonded polypropylene weed barrier for use in landscaping. Light at 1.25 oz/sq yd, allows water and air to pass through but smothers unwanted growth and retains soil moisture. We offer 3x25' and 3x100' but can special order other sizes; call for information.
9073: 3x25' (1#)/$7.00; 9074: 3x100' (3#)/$16.00

Yard-Tek Pro Heavy-duty weed-suppressing barrier for landscaping, strong enough to stand up to quack grass and other garden invaders while it permits moisture and air to penetrate. Thermally bonded, stiff like new blue jeans, 3.5 oz/sq yd. 3x100', other sizes available.
9075: 3x100' (6#)/$60.00

Season Extenders

Embossed Black Plastic Mulch Eliminates pressure from weed competition and increases soil temperatures. Put down a few weeks before planting to allow the soil to soak up some heat. Embossed texture increases strength and minimizes tearing. Not very aesthetic but gets the job done. 1.25 mil. 4' wide.
9111: 4x50' (1#)/$5.00; 9112: 4x250' (5#)/$23.50
9113: 4x2400' (40#)/$135.00

IRT 100 Mulch Has the weed-suppressing qualities of black plastic and lets the infra-red light through to warm the soil beneath. For northern growers, IRT adds days to the growing season at both ends. Recommended for longer season crops and earlier ripening of late summer crops. 1.0 mil. 4' wide.
9116: 4x50' (1#)/$5.00; 9117: 4x250' (5#)/$23.50
9118: 4x2400' (40#)/$130.00

Pro-17 Row Cover Spunbonded polypropylene row cover, 0.5oz/sq yd. We prefer it to Reemay for its soft texture, flexiblity and resilience. Light enough to float on top of plants, but sturdy enough to provide protection against wind and bugs. It resisted abrasion from the thistly artichoke flower and the pouncing of the kitten on the pepper plants. Transmits air, water and 85% of sunlight. Provides 4° of frost protection. Available in three widths. UV. stabilized for extra durability.
9121: 6x50' (1#)/$9.50; 9122: 6x2550' (55#)/$265.00
9123: 83"x250' (3#)/$30.00; 9124: 83"x1000' (40#)/$115.00
9126: 10x50' (2#)/$13.00; 9127: 10x250' (5#)/$60.00
9128: 10x1000' (40#)/$180.00

Elmer Plantex-C An unbleached hand-picked cotton row cover, compostable, yet will give several years use with proper care. Similar in weight and weave to cheesecloth, it provides a few degrees of frost protection, keeps insects from the plants and slows evaporation, decreasing the need for irrigation. An ecological alternative to spunbonded oil-based products. When the cloth becomes more holes than whole, just add to your compost pile and start the cycle anew. Light enough to be used without support except in very wet conditions. The edges are treated with sunflower oil to prevent premature rotting. It may be ordered without treatment if desired. Available in 5x30' introductory pack (edges are not treated), 5x300', 7x100', 7x300', 11x100'.
9130: 5x30' (1#)/$17.50
9131: 5x300' (15#)/$110.00
9132: 7x100' (10#)/$50.00
9133: 7x300' (30#)/$150.00
9134: 11x100' (30#)/$80.00

Typar Spunbonded polypropylene is very durable, yet will still let in light and water. Used commercially as a winter row cover for strawberries. Our experience suggests a useful life of two to three years. 1.25oz/ sq yd.
9136: 15x50' (5#)/$40.00
9137: 15x100' (10#)/$80.00

Clear Slitted Plastic Row Cover Applied over wire hoops to form small tunnels, creating a greenhouse environment to promote the growth of heat-loving plants. Self-venting on hot days. Offers a few degrees of frost protection. Can be reused with care. 1.1 mil. 6' wide.
9141: 6x50' (2#)/$8.50
9142: 6x250' (10#)/$40.00
9143: 6x1000' (40#)/$105.00

Galvanized Wire Hoops For building tunnels with Pro-17, slitted plastic or other row covers. Most effective if spaced at 5' between hoops. 10 gauge wire, 76" long.
9146: 20 (15#)/$22.00
9147: 100 (40#)/$75.00

Staples The garden is full of rocks except when you need one to anchor the row cover. 6" galvanized wire staples neatly hold down landscape fabrics of all kinds.
9151: 25 (1#)/$2.50
9152: 100 (4#)/$9.00
9153: 1000 (50#)/$70.00

Wall o' Water Season extender for individual plants. Offers protection to 16°. Surrounds plant with plastic teepee 18" high, 18" across. Holds 3 gallons of water which absorb heat during day and release it at night to moderate temperature extremes. Put out two weeks ahead of transplants to warm soil.
9161: 3 (2#)/$8.00
9162: 36 (24#)/$75.00

Repair Kit Extend the life of your Wall o' Water.
9163: (0#)/$1.25

Saylor Caps Tests in Pennsylvania have shown increased yields and earlier ripening for tomatoes grown in these solar incubators. Tomatoes can be planted up to six weeks earlier. A galvanized steel frame supports a plastic bag of water to hold in the sun's warmth, protecting plants from frost and promoting faster growth. Can be used as a cloche for squashes and other tender vines; remove once danger of frost passes. Boxes of 25.
9164: 25 (25#)/$75.00

Greenhouse Umbrella A clear plastic plant shelter with an uncanny resemblance to the mod plastic umbrellas of '60s London and Carnaby St. In fact it is a sturdy portable greenhouse 42" high by 40" across built on an umbrella frame so that it collapses for easy storage. Umbrella "handle" is a spike which stabs well into the ground. Ours is getting tattered after its third full season of use, but we plan to use it again because heat-loving plants like eggplant thrive under it.
9165: each (2#)/$13.50; 9166: 5 (10#)/$57.50

Univent Automated Window Opener Heat-sensitive arm opens to a maximum of 18" at 86°F. Will lift cold frame lights weighing up to 15 lbs. Use two for heavier windows. Store indoors in winter.
9176: each (2#)/$47.50

Shipping weight is in parentheses (#).

Taking Measure

Cook's Consulting Soil Testing Services A healthy well-balanced soil is the heart of good agriculture. We offer two mail-in soil test kits containing directions for sampling, a bag for the sample, and a mailing envelope. Our price includes analysis and recommendations for making organic soil improvements. Choose between two extensive tests. The Agricultural Soils Kit tests for pH, nitrogen, phosphorus, potassium, organic matter, soil texture, calcium, magnesium, sulfate, base saturation, cation exchange capacity (CEC) and aluminum. The Deluxe Agricultural Kit tests all the above and manganese, iron, chloride, copper, and zinc.
9201: Soil Test (0#)/$17.00; 9202: Deluxe Test (0#)/$25.00

Soil Analyzer Combination pH and fertility meter. To prepare the soil for a reading, scrape away the top two inches, work the next five inches removing any stones, twigs and roots, breaking up any large clumps; wet thoroughly, preferably with rain water or distilled water. Set meter for the desired reading, clean the probes and plunge them into the sample. Wait one minute for a pH reading, the fertility reading takes only 5 seconds. The fertility analyzer requires one AA battery.
9203: (0#)/$27.50

Garden pH Test Kit pH is the key to plants' ability to take up nutrients. An inexpensive method for approximating your soil's pH and determining amount of aragonite or lime needed to redress imbalances. Includes instructions and materials for 8 tests.
9205: (0#)/$5.00

pH Meter If you find the reading from a pH test slightly muddied, a clearer answer can be had by using a meter. Prepare a slightly moistened spot in the soil you wish to test, free of rocks and other large matter. Activate the probe with sandpaper, and in a few minutes the needle registers soil pH precisely.
9206: (0#)/$7.50

Garden Soil Test Kit Contains reagents for approximately 8 tests each of soil pH, nitrogen, phosphorus and potassium. Includes instructions, test tubes, and information booklet.
9207: (1#)/$17.50

Tru-Chek Rain Gauge Accurate wedge measures up to 6" of rainfall. Measures increments as fine as 0.01". Comes with hardware for mounting on a post.
9211: (1#)/$6.50

Taylor Max-Min Thermometer Records the high and low temperatures since the last setting. Especially useful for monitoring the greenhouse or for calculating degree days. Gives reliable data for bragging about temperature extremes. Easy-to-read scale measures from -40° to 130°.
9212: (1#)/$21.00

Taylor Soil Thermometer 5" stainless steel probe to monitor soil temperatures at planting depth to gauge the optimum time for planting. Avoid damping-off and other temperature-related problems.
9221: (1#)/$13.00

Reotemp Compost Thermometer 20" stainless steel probe, this bi-metal thermometer has a 2" dial registering from 0-200°. Virtually indestructible.
9222: (1#)/$25.00

Tools

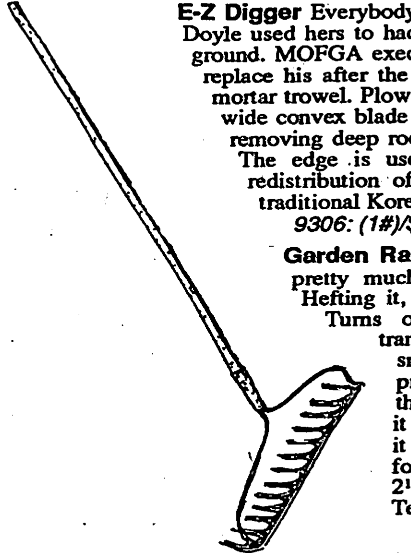
Trowel A heavy duty trowel from Garden Tools of Maine, the blade is 5¾" long by 3" wide with a 1¼" deep arc. Blade calibrated in inches to judge planting depth. Stands a lot of use and ferocious prying.
9301: (1#)/$13.50

Claw Three tines of spring steel for cultivating around plants and clawing up recalcitrant weeds. If Caliban had had one of these to dig his pignuts he might have been a happier fellow.
9302: (1#)/$14.00

Cape Cod Weeder A thin 3" blade set at right angles to the shaft and bent lower than the shaft. Use it to reach under weed roots and pull them toward you, dislodging them. Overall length 13½".
9303: (1#)/$14.00

Widger Indispensable for dividing and separating seedlings, digging them out of plug flats. Very handy for working with small plants in tight places. Amy LeBlanc said we had to carry these and we're glad we do. Stainless steel. 6½" long with a ¾" end and a ¼" end.
9304: (0#)/$4.00

Weeding Knife *Determined* males using heavy equipment could bend this digging tool, but no amount of prying in the garden will. Thick concave steel blade with bevelled edges tapering to a point, one semi-sharp smooth edge and one serrated edge. The blade extends 2½" into the wooden handle to which it is securely riveted. Our favorite handtool, still in good condition after 8 years of hard use. Originally designed to extricate plants for bonsai from Japan's *mountains, this* is the perfect tool for prying out taprooted weeds and knocking soil from sods and weed clumps. Good for use as a narrow trowel, for general cultivating and sawing small roots or heavy stems. Not as sharp as a knife or a saw, but it gets the job done. Susan says, "When I go out into the garden, I put my weeding knife in one pocket and my pruners in the other and am equipped for most eventualities." Comes with a black vinyl sheath with a belt loop. 6½" blade, 11¾" long overall.
9305: (1#)/$22.50



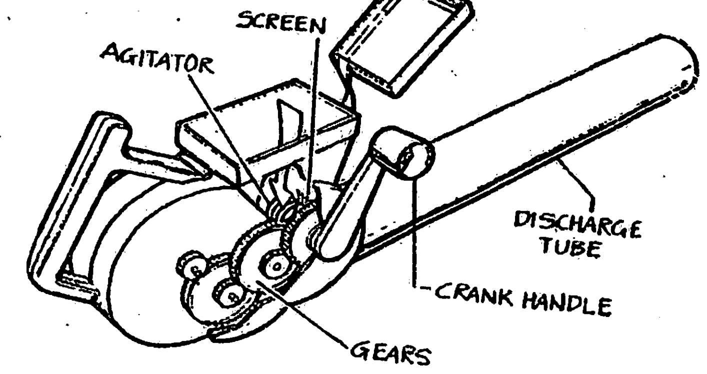
E-Z Digger Everybody raves about this tool. Staffer Carol Doyle used hers to hack parsnips out of the frozen spring ground. MOFGA executive director Russell Libby had to replace his after the first was pressed into service as a mortar trowel. Plow-shaped design features a 7" long 3" wide convex blade tapering to a pointed end. Great for removing deep roots and sod and for cultivating soil. The edge is used for light surface scraping and redistribution of the soil. Made in Korea from a traditional Korean design.
9306: (1#)/$10.00

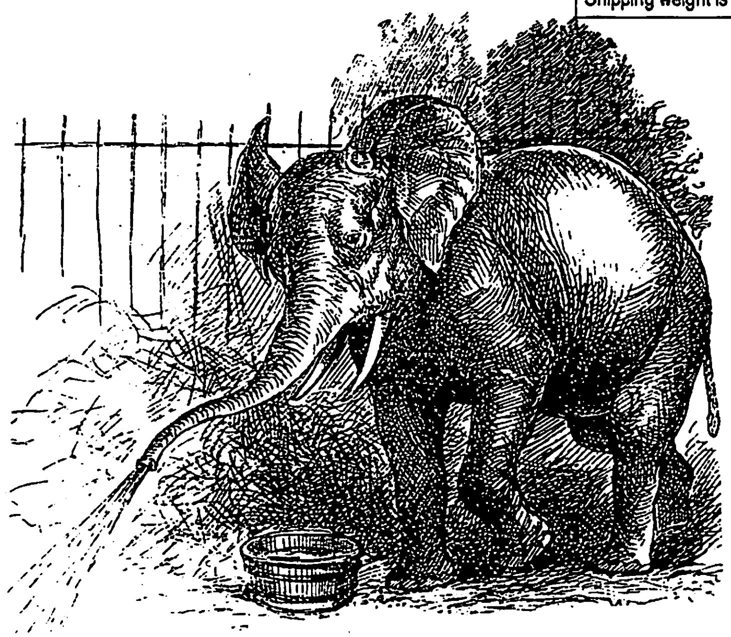
Garden Rake I thought all garden rakes were pretty much alike until I saw this big one. Hefting it, it seemed too heavy for easy use. Turns out it's balanced so the weight translates into more power and smoother glide in the seed bed you're preparing, not at all like tugging at the soil with a flimsy tool. I've used it for three seasons, and it seems like it will last a lifetime. Rake is steel, forged in Brazil, 17" long with 16 2½" long teeth. Ash handle made in Tennessee.
9307: (10#)/$25.00

Digging Fork A classic solid four-tined fork made by Samuel Parks in England. The forged steel shaft comes high up the handle for ruggedness. Digging forks disturb the soil less than spades and are great for shaking soil out of weed clumps. Split wood D-ring handle for comfortable digging. Overall length 43" with 31½" handle.
9308: (10#)/$45.00

Soil Sieve Set A 12" diameter stainless steel frame with 3 interchangeable screens, of 4, 5 and 10 mesh/inch. Use to prepare potting mix and seed beds, or to screen compost before adding it to the garden. Roberta took one look and said, "Oh! I would buy one of those. It would be very good for seed cleaning." The screens included would be good for beans, peas and larger seed and it could be modified to clean smaller seed as well.
9309: (3#)/$20.00

Dustin-Mizer Dusting plants spreads insecticides and fungicides efficiently, leaving the coverage on the leaves, not absorbed into the plant. But spreading dust evenly can be a challenge. No longer. The Dustin-Mizer creates a high-volume stream of air, spreading dust evenly and thoroughly; the deflector shield allows one to reach under the plant and dust leaf undersides as well. High impact ABS plastic, holds up to 1 lb. Use with our sulfur dust, diatomaceous earth and other light powders.
9310: (3#)/$32.50

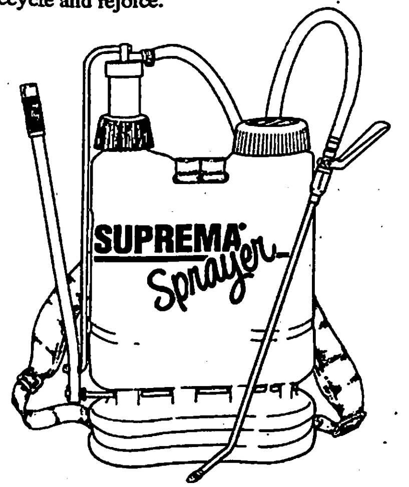


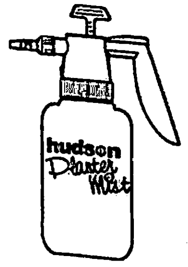


Watering Can Heavy duty 2½ gallon hot-dipped galvanized Haws watering can, made in England. Not a flimsy imitation. Fixed handle on top and long spout make pouring well-balanced and easy. Welded bar spout support. Detachable brass-faced rose rains a shower that doesn't wash away soil or seedlings. Once you've used a good watering can, you won't go back to pouring from jugs and pails.
9311: (5#)/$47.50

Eco-Spout Turns used plastic containers into watering cans. Adapter fits 1-gallon and half-gallon plastic jugs, and 2-liter soda bottles. The manufacturer promotes them with the slogan "Never throw away a plastic jug again!" Good idea, but even after buying an eco-spout or two, you'll still need to recycle. Comes with both a spout and sprinkler attachment which snap on to the adapter. Reuse, recycle and rejoice.
9312: (0#)/$3.50

Backpack Sprayer
Hudson's professional model has a 4-gallon capacity sturdy polypropylene tank and separate pressure tank. 5-year limited warranty. Padded non-absorbent carrying system with waist strap. Can be set up for either right- or left-hand use. Pressures up to 90 psi enable spray to reach high into orchard trees. Nickel-plated brass fittings and heavy-duty chemical-resistant hoses for long life and easy use. Made in the USA.
9314: (15#)/$100.00





Hand-held Sprayer 2.75-gallon tank makes this Hudson top-of-the-line sprayer ideal for heavy use in a small farm setting. A few strokes build up working pressure and the occasional pump keeps the spray going. Heavy-duty pressure-molded polyethylene tank is lightweight and extremely durable. 10-year limited warranty. Made in the USA.
9315: (10#)/$47.50

Planter Mist This 1.25-liter pump sprayer is an excellent choice for indoor or outdoor use. A few strokes of the pump build up enough pressure to mist your seedlings and still keep the cat off the table. We had a lot of fun testing this in the office and it held its pressure for days. Adjusts easily from a fine mist to a spray to a thin stream, and the nozzle unscrews for cleaning. The opening is large enough to fill easily and the body is sturdy polyethylene. Made in China.
9316: (1#)/$10.00

Flame Weeders

Flame weeding has been popular in Europe for over 50 years and was used in this country in corn and cotton fields before the introduction of herbicides. A brief burst from the 2000° flame heats the sap in the cell walls causing them to burst and collapse; the plant wilts and dies a few days later. Especially effective on young annual and perennial weeds, repeated flamings of persistent weeds eventually so discourages them that they pull up roots and die. The flame can also be used for melting ice, burning out web worms and singeing the tops of meringues and crèmes brûlées.

Backpack Weeder Aluminum frame backpack comes with 3-gallon fuel cylinder, 10' hose, regulator, 33" wand rated at 400,000 BTU/hr.
9318: Kit (20#)/$230.00

Weed Flamer Wand If you don't plan on walking vast fields while flame-weeding, or if you already own a gas grill. The same 33" wand, 10' hose and regulator as the Backpack weeder to attach to your 3-gallon propane tank.
9319: (5#)/$75.00

Squeeze Valve Adjustable valve allows you to set a minimal flow which increases as you squeeze the handle. Keep a pilot flame burning when moving from row to row. A good addition to either the backpack weeder or the wand.
9320: (2#)/$40.00

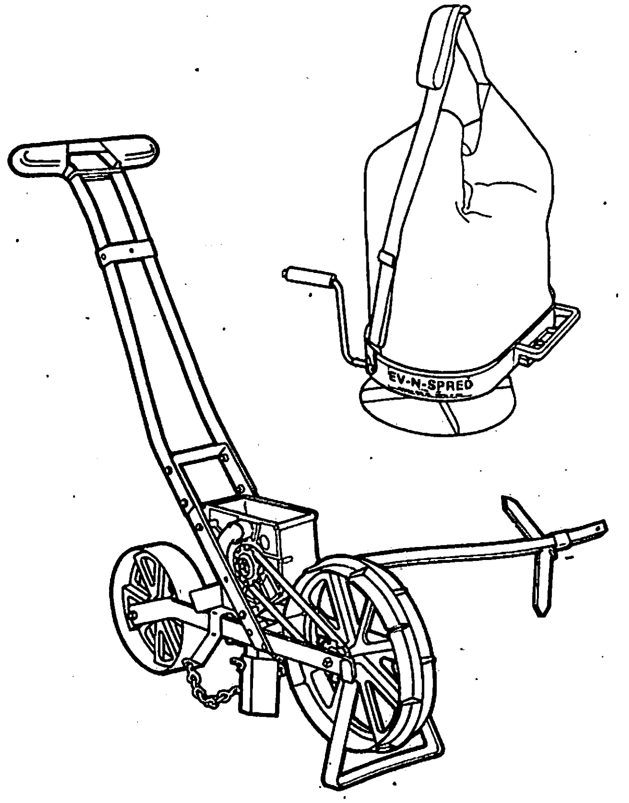
Earthway

Earthway Vegetable Seeder In one continuous operation the seeder opens the soil, spaces, plants and covers the seed, packs the soil, and marks the next row. Reliable performer for the large garden or small farm. Includes 6 seed plates: carrots, beans, corn, peas, radish, and beets. A real time-saver, especially for corn, beans and peas.
9321: (10#)/$80.00

Fertilizer Attachment Easily attaches to Earthway Seeder for side-dressing plants. Fully adjustable to control application of all granulated fertilizers. Reduces the amount of fertilizer spread, quickly paying for itself.
9322: (5#)/$35.00

Optional Seed Plates Make your Earthway Seeder even more versatile. Package of five plates: brassicas, cucumber, popcorn, lima beans, and one for small seeds like rutabaga and lightly seeded lettuce, carrots and turnip.
9323: (1#)/$16.00

Broadcast Spreader Spread seed or fertilizer evenly and accurately. This spreader has a zippered canvas bag and shoulder strap and, most importantly, an enclosed gear box to keep dirt out of the die-cast zinc gears.
9324: (10#)/$45.00



Scythes

We have been lucky to get to know Peter Vido of New Brunswick, a man dedicated to the art, science and ecstasy of mowing. He has given a great deal of thought to which combination of snath, grip and scythe will give the most pleasure and efficacy as it is being used. With his help and guidance we are working to provide a greater range of good mowing tools. **To get our expanded list, with tips on mowing and scythe maintanance, send a SASE to PO Box 520, Waterville ME 04903.**

Wooden Snath Scythe Kit A snath of air-dried ash designed by David Tressemer and customized to the mower's height by Peter Vido, snath ring, 22" or 27" grass blade sharpened for mowing, your choice of an artificial or natural stone, and stone holder. Specify height of user and choice of stone when ordering. Supply limited. NEW!
9331: Kit with 22" grass blade, stone and holder (10#)/$90.00
9332: Kit with 27" grass blade, stone and holder (10#)/$102.50
9333: Snath only, specify height of user (5#)/$45.00

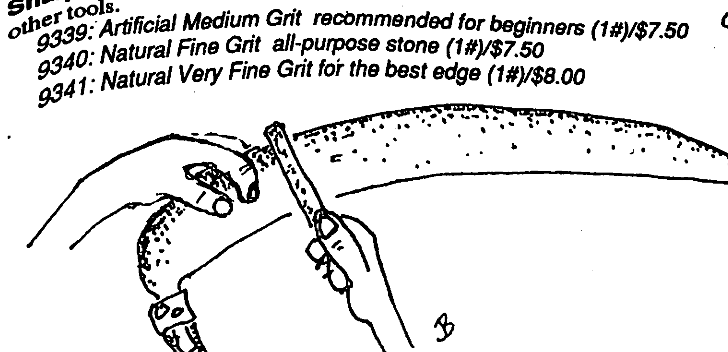
Metal Adjustable Snath Lightweight aluminum snath, made in Austria. Upper and lower handles adjust to your height and comfort. Recommended for mowers 5'6" and under.
9334: Kit with blade, stone and holder (10#)/$105.00
9335: snath only (5#)/$45.00

Scythe Blade 22" Classical Turkish pattern, light narrow blade with more curvature and less elevation to the point. Good for children and for adults mowing tight spaces such as in gardens or small orchards. Sharpened and ready for mowing. (For other sizes send for our expanded list, see above.)
9336: (3#)/$50.00

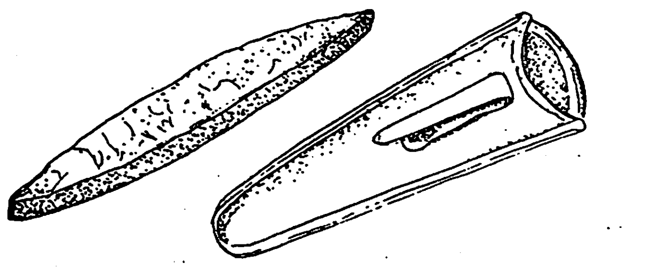
Scythe Blade 27" Classic German-Austrian pattern of a quality no longer imported into North America. For those with some experience or for mowing large flat areas like lawns or hay fields. Sharpened and ready for mowing. (For other sizes send for our expanded list, see above.)
9337: (3#)/$62.50

Scythe blades require periodic hammering (peening) to restore the edge, and regular sharpening with a stone to maintain a fine cutting edge.

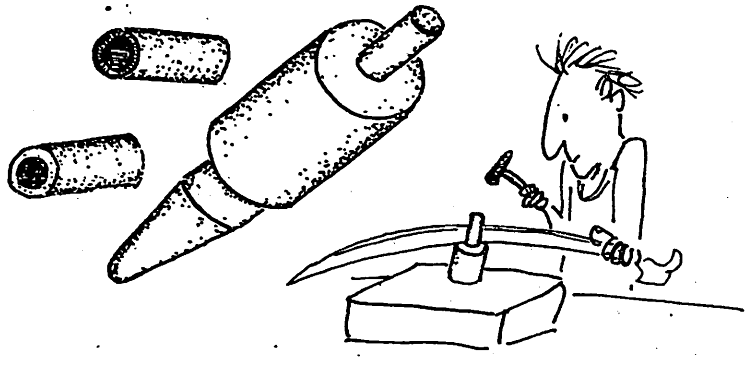
Sharpening Stones Water stones, do not use oil. Suitable for knives and other tools.
9339: Artificial Medium Grit recommended for beginners (1#)/$7.50
9340: Natural Fine Grit all-purpose stone (1#)/$7.50
9341: Natural Very Fine Grit for the best edge (1#)/$8.00



Whetstone Holder Lightweight metal. Half-fill with water and clip to the waist of your pants to keep your stone wet and ready to use. NEW!
9342:(1#)/$8.00



Hammering Jig To direct the force of the hammer blows and reduce the tendency to overpeen or underpeen blades. Use with a 16 to 20 oz. hammer. Highly recommended for beginners and occasional mowers. NEW!
9343: (5#)/$65.00



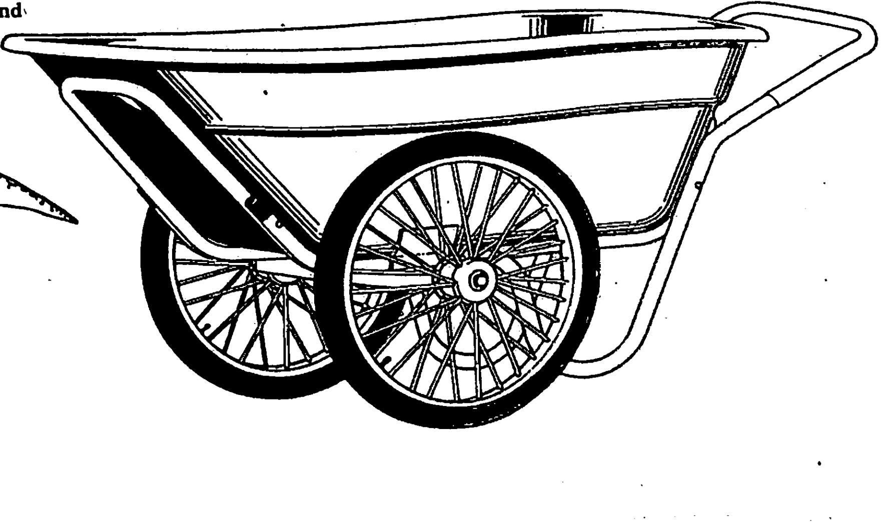
Hammer and Anvil Set Crosspeen hammer and slightly rounded peening anvil. The traditional hammering system.
9344: (5#)/$40.00

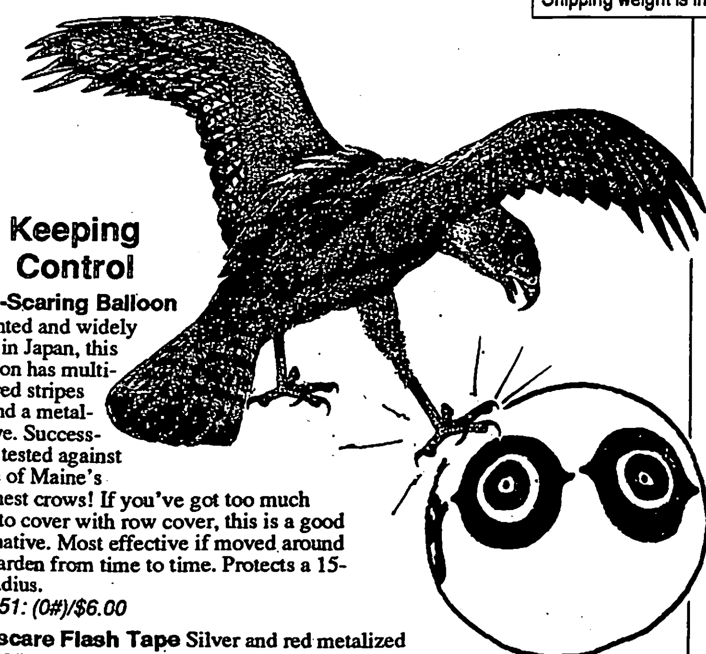
Smart Cart We think the Smart Cart is the best garden cart on the market today. The pan is made of high-density linear polyethylene impregnated with UV inhibitor to protect from sun damage. The heavy plastic withstands a lot of abuse: we use the pans for mixing our Soil-Building mixes and CR Lawn mix hundreds of pounds at a time, stirring the seed with a hoe. The pan easily snaps in and out of the tubular aluminum alloy carriage and has no bolt holes so is completely leakproof. The cart weighs only 35 lbs and has a central balance point so that even when fully loaded it is easy to push or pull. Doesn't tip over backward. Fedco Trees now owns two Smart Carts especially for hauling huge loads of wet sawdust. The manufacturer in Windham, ME, offers a limited lifetime warranty on the frame and tub. Spare parts are available from us. Assembly takes about half an hour, the parts fit beautifully.

Choice of two wheel types: solid rims with 4" wide, 16.6" diameter tires, rated for 600 lbs; excellent for hauling heavy loads over uneven terrain. Spoked wheels, with 2" wide, 20" diameter tires for loads up to 400 lbs.

NEW! choice of two body sizes: 7 cu ft pan that we have offered in the past or 12 cu ft pan.

Cart is shipped directly to you from the manufacturer.
9346: 7 cu. ft. Solid Rim (45#)/$235.00
9347: 7 cu. ft. Wire Rim (40#)/$235.00
9348: 12 cu. ft. Solid Rim (55#)/$280.00
9349: 12 cu. ft. Wire Rim (50#)/$280.00





Keeping Control

Bird-Scaring Balloon Invented and widely used in Japan, this balloon has multicolored stripes around a metallic eye. Successfully tested against some of Maine's toughest crows! If you've got too much corn to cover with row cover, this is a good alternative. Most effective if moved around the garden from time to time. Protects a 15-20' radius.
9351: (0#)/$6.00

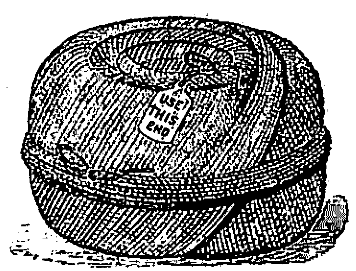
Birdscare Flash Tape Silver and red metalized 7/16"x250' plastic tape is a cost-effective method to protect crops against bird damage. Suspend tape in a loose spiral above the crop. Wind causes tape to flash and flicker resembling fire. Very effective against flocking birds and crows, less so against robins, sparrows and their ilk. Don't apply too early or birds may get accustomed to tape.
9352: (0#)/$2.50

Bird-Scaring Balloon and **Birdscare Flash Tape Combo** Keep the birds off balance.
9353: (0#)/$7.50

Bat House This sturdy rustic pine bat house comes fully assembled and ready to mount. Designed according to the latest ideas in bat-house architecture with a single ¾x6½x17½" dwelling area. A cozy space for the bats to spend their days resting after a long night of eating your mosquitoes. For more information on bats and how to attract them, write to Bat Conservation International, PO Box 162603, Austin, TX 78716.
9356: (2#)/$14.00

Bird House Kit Attract Eastern Bluebirds or Tree Swallows to your yard or garden. Bluebirds are voracious insect eaters, but choosy about nesting areas, preferring a hollow tree at the edge of a field. Development has destroyed many nesting areas, and starlings, a non-native species, migrate here a few weeks before the bluebirds arrive and often take the best spots. The opening on this bird house is too small for the starlings. Designed according to the specifications and recommendations of the Maine Audubon Society and the Cornell Lab of Ornithology, with a clean-out door and a predator-control opening. Requires assembly. Nails and instructions included.
9357: (2#)/$8.00

Orchard Mason Bee Hotel Ubiquitous and vigorous pollinators, small solitary black Orchard Mason Bees (*Osmia lignaria lignaria* in the East) can be found across the United States and Canada. Although they do extensive renovations once they find a home, they do not excavate their own nesting sites. The Orchard Mason Bee Hotel is a Douglas fir block drilled with 39 mason bee cells. Bees lay several eggs in each cell. Hanging these blocks in your orchard or on the side of your home will offer an attractive nesting site for this prolific pollinator which never flies more than several hundred feet from its home. See *The Orchard Mason Bee* by Brian L. Griffin (#7435 in the Fedco Trees catalog) for more information.
9358: (2#)/$13.00



Hemp Twine You've asked for untreated garden twine. Here it is: hemp, grown in Romania. Cut down vines along with their twine and compost the whole tangle. Promote the rediscovery of hemp as a great fiber plant at the same time! Two sizes, 1.5mm twine, to tie up plants and mark rows, and 3mm cord, strong enough for trellises and hop fences. Sold by weight; lengths are approximate.
9408: 1.5mm 200g/550' (1#)/$5.00;
9409: 3mm 500g/450' (2#)/$10.00

Who's Who in the Garden World

Wooden Pot Labels Untreated 5x⅝" wooden sticks for labeling seedlings. Made in Maine.
9411: Pkg of 50 (0#)/$2.00; 9412: box of 1000 (5#)/$23.00

Wooden Garden Stakes 12x1⅛x⅛". Large enough to label rows in the garden. Untreated and made in Maine.
9416: Pkg of 25 (1#)/$3.50; 9417: box of 250 (8#)/$30.00

Treated Wooden Garden Stakes Treated with non-toxic white paint, these have been the official stakes in Fedco variety trials for the past two years. At the end of the summer, names stand out clearly and the stakes show little deterioration where they had been in contact with the soil. 12x1⅛x⅛".
9418: Pkg of 25 (1#) $4.00; 9419: Box of 250 (8#) $32.50

Field Stakes 18x1⅛x¼". You won't lose this variety marker in the undergrowth. Longer and thicker than the garden stakes, these untreated field markers are easy to spot in the thickest bean bushes. Made in Maine.
9421: Pkg of 25 (2#)/$10.00; 9422: box of 100 (10#)/$35.00

Plant Markers Zinc-coated nameplates on galvanized steel wire provide permanent outdoor labeling. Available in two styles: the hairpin, a 12" tall slender marker with an extra long ⅞"x3¼" nameplate or the basic cap style marker, 10½" tall with a ⅞"x2½" nameplate. Comes with marking pencil. Now when your friends admire the schizanthus, you can remember its name.

Hairpin Plant Markers
9431: Pkg of 25 (1#)/$11.00; 9432: Pkg of 100 (5#)/$37.50

Cap Style Plant Markers
9436: Pkg of 25 (1#)/$11.00; 9437: Pkg of 100 (5#)/$37.50

Chisel-Point Marking Pen Great for writing on garden stakes. Writing will remain clearly visible throughout the season. Black Marks-A-Lot chisel point permanent marker.
9442: (0#)/$1.25

Fine Point Marker Just the right size for writing on wooden pot labels. Permanent ink won't fade when plants are watered. Black Sharpie.
9443: (0#)/$1.00

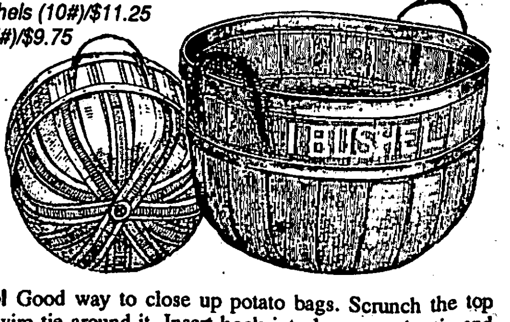
Dividing the Spoils

Seed Envelopes Our reclosable seed envelopes, plain white with no logo. Use them for seed saving, repacking bulk seed orders or tucking away small objects. Two sizes.
9501: 2x4" Pkg of 10 (0#)/75¢; 9502: 3x5½" Pkg of 10 (0#)/$1.00

Potato Bags For storing or marketing your own spuds. Heavy paper bags with a mesh vent in front to avoid moisture build-up.
9506: 5# bag (0#)/25¢; 9507: 20# bag (0#)/45¢; 9508: 50# bag (0#)/70¢

Burlap Bags Burlap bags are heavy duty, untreated and hold 50 lbs of potatoes.
9509: (0#)/$1.00

Harvest Baskets Old-time wooden lath and wire baskets in bushel, half-bushel and peck sizes. Bushels and half-bushels have two wire loops for handles, the peck has a wire bail with a wooden handle. Bundle of 3 baskets.
9510: 3 Bushels (10#)/$12.75
9511: 3 Half-bushels (10#)/$11.25
9512: 3 Pecks (5#)/$9.75



Bag Twister Tool Good way to close up potato bags. Scrunch the top closed and wrap a wire tie around it. Insert hook into loops on the tie and twist. We call this tool a "twizzler" in our warehouses, but doubt that the term is widely used. Ties sold separately.
9513: (0#)/$12.00

Wire Ties For use with Bag Twister Tool. 5½" long.
9514: (0#)/$1.50

Rubber Bands 1# pkg. These are #64 size, ¼x3½", approximately 460 per lb. Useful for bunching broccoli, dried flowers, carrots, beets, scallions for market.
9516: 1#/$4.00

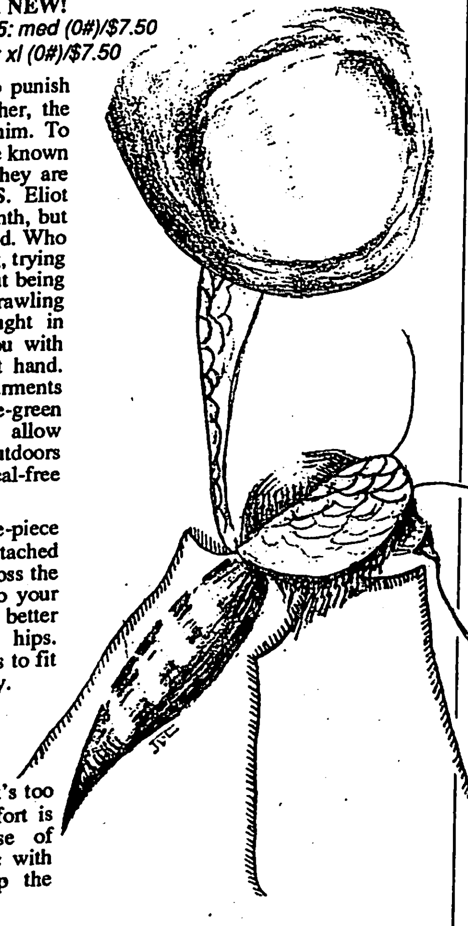
Aid and Comfort

Womanswork Pigskin/Cowhide Gloves for Women My ideal gloves, Susan writes, would be warm and have a comfortable fit. They'd protect my hands working with firewood, rocks, roses and barbed wire, and be soft enough for driving. They'd cost very little and last forever. Womanswork Gloves come close to that ideal. They don't last forever, but they give me at least two good years of hard wear. Designed specially to fit women's hands which makes a world of difference in comfort. Combine the flexibility of pigskin with a cowhide palm for extra strength and durability. To size, measure around your knuckles, excluding your thumb.

9601 Small	*6-6½"*	*pair (0#)/$23.00*
9602 Medium	*7-7½"*	*pair (0#)/$23.00*
9603 Large	*8-8½"*	*pair (0#)/$23.00*

Hemp Gripper Gloves Ambidextrous (or, as we lefthanders like to say, "omnisinister") lightweight knit gloves of hemp yarn, covered front and back with little rubber gripping dots. I tried typing this description with these gloves on, but confess they are not nearly fine enough for that. What they are fine enough for is getting a handle on things outdoors, throwing firewood, nailing shingles, anything that requires a good grip. Because you can wear the gloves on either hand, when one side wears out, you just switch sides and they're good to go. NEW!
9604: sm (0#)/$7.50; 9605: med (0#)/$7.50
9606: lg (0#)/$7.50; 9607: xl (0#)/$7.50

Bug Baffler Clothing To punish Orestes for killing his mother, the gods sent the Furies after him. To the ancient Greeks they were known as the Kindly Ones, to us they are known as black flies. T. S. Eliot called April the cruelest month, but he didn't live in New England. Who hasn't been out of an evening, trying to do some gardening without being driven insane by the bugs crawling into your eyes, getting caught in your throat and covering you with huge itchy welts. Help is at hand. These lightweight roomy garments made of fine-mesh olive-green nylon keep the bugs off, allow breezes in and make the outdoors liveable again with chemical-free insect protection.



Shirt Generously cut one-piece garment with permanently attached roomy headnet has zipper across the front neck seam for access to your face. Headnet is black for better visibility. Elastic band at hips. Sleeves have stretch knit cuffs to fit securely but not uncomfortably.
9611: s/m (0#)/$33.00
9612: l/xl (0#)/$33.00
9613: xxl (0#)/$35.00

Pants For those days when it's too hot to wear pants, your comfort is limited only by your sense of modesty. The waist is elastic with snap adjustments to take up the slack.
9621: s/m (0#)/$26.00
9622: l/xl (0#)/$26.00

Headnet Patented hood design allows plenty of room for a hat and seamless construction permits unobstructed vision through black net. Elastic bands slip er arms to hold the hood securely in e. Perfect for bee observation. One
9626: (0#)/$8.00

Bug Baffler Size Chart

Weight	Size
90-175 lbs	S/M
175-235 lbs	L/XL
over 235 lbs	XXL

Ankle Guards If your socks are like mine, the elastic in them is no longer adequate to hold your pant legs in securely. Ankle guards with stretch knit band at the ankle and elastic band at the calf keep the bugs out of your socks and pantlegs. One size.
9627: (0#)/$8.50

Garden Soap Contains 40% olive oil and no animal fats and is specially ormulated for gardeners. The tan 4½ oz bar is flecked with ground osemary and is not highly scented. It contains the essential oils of ucalyptus and rosemary to soothe and rejuvenate scratched dry skin. Made n Bowdoinham, Maine.
9701: (0#)/$3.50

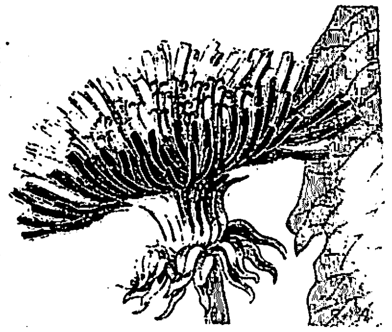
Bygone Insect Repellent From Lakon Herbals in Vermont, compounded of eucalyptus, rosemary, birch and peppermint oils in a canola oil base. Rated by *Natural Health* as one of the most effective natural outdoor formulas. My daughter spent a comfortable night, camping by New Sharon bog with Bygone as a close companion. Pleasing aroma. Doubles as an herbal massage for sore muscles. Safe for pregnant women and children, does not contain pennyroyal or citronella.
9703: 2 oz. (0#)/$4.50

Avena Botanicals

Heal-All Salve After your hands have been roughened by a day's grubbing in the soil, they need an appointment with an ointment! Soothe them with this salve made from Alfalfa, Basil, Borage, Calendula flowers, Comfrey root, Plantain, Red Clover blossoms, St. Johnswort flowers, beeswax and Self-Heal flower essence. Tin with pop-off lid.
9711: 1 oz. (0#)/$6.00

Avena Botanicals Face Cream Formerly known as Fairy Flower Face Cream, Avena's recipe to soothe, soften and moisturize your skin after it has been buffeted by wind and weather. Contains Comfrey, Calendula, Linden flowers and Mugwort leaves and flowers in a base of Apricot kernel, Coconut and Almond oils; Rose water, Beeswax and pure essential oil of Lavender. Glass jar with screw-on lid.
9717: 2 oz. (0#)/$8.00

Spring Tonic Eating dandelion greens in the spring is a New England tradition. Spring Tonic contains tinctures of Dandelion root, flowers and leaves, Yellow Dock root and leaves, Burdock root and Nettle leaves. As the days grow longer, those first parsnips, scallions and sorrel leaves along with a bit of Spring Tonic can help wake us from our long winter torpor. Glass bottle with dropper.
9721: 1 oz. (0#)/$8.00



Immune Tune An immune system supporter and energy builder widely used by the Fedco staff. A combination of Siberian Ginseng root, Astragalus root, Schizandra berry, Codonopsis root, Prickly Ash bark, Licorice root and Cinnamon bark. 1 oz glass bottle with dropper; 4 oz glass bottle with cap.
9726: 1 oz. (0#)/$8.00; 9727: 4 oz. (0#)/$30.00

Extra Echinacea Tincture of *Echinacea purpurea* roots, leaves, flowers and seeds and Echinacea flower essence. We take it to ward off cold symptoms when they first appear. 1 oz glass bottle with dropper; 4 oz glass bottle with cap.
9731: 1 oz. (0#)/$8.00; 9732: 4 oz. (0#)/$30.00

FEDCO SEEDS

Co-op Seed Packers

Ordering Information page
Fedco Seeds 3
Moose Tubers 4
Organic Growers Supply 4
Order Forms
Organic Seedlings 52 A
Seeds & Books 52 C
Seed Potatoes 52 E
Tools & Supplies 52 G

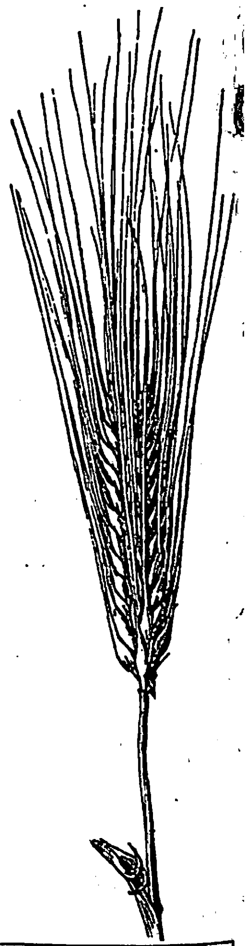
Fedco Seeds Macro Index

Our seeds are not arranged in alphabetical order. They are grouped by general seed type:

pages
Large seed - beans, corn, peas 10-17
Cucurbits - melons, cukes, squash 17-25
Roots - carrots, beets, onions 26-29
Greens - spinach, lettuce, endive 30-35
Brassicas - broccoli, cabbage, kale 36-38
Solanums - eggplant, pepper, tomato 39-46
Herbs - culinary, medicinal 47-51
Flowers - annual, everlasting, perennial 56-70
Discounted Specials 77
Herb and Flower Charts 53-55
Botanical Index - herbs, flowers 70

Certified Organic Seedlings
for pickup
at the Fedco Tree Sale
May 5-7!

page
Ageratum 63
Alfalfa 91
Amaranths 34, 58, 77
Annual Flowers 56-67, 77
Artichoke 39
Arugula 34
Asters 56, 63
Avena Botanicals 103
Azomite 93
Bachelor's Button 56
Barley 78
Basil 47, 49
Baskets and Bags 102
BD Preparations 95
Beans 10-12
Beets 26-27
Books 71-76
Broccoli 36, 37
Brussels Sprouts 38
Bt 96
Buckwheat 78
Bug Baffler Clothing 103
Cabbage 36, 38, 77
Calendula 57
Cantaloupe 17, 18-19 77
Carrots 26, 77
Cauliflower 36, 38, 77
Celery & Celeriac 39
Chard 34, 77
Chicory 30
Chinese Cabbage 35
Chives 47
Chrysanthemum 35
Cilantro 47
Claytonia 30
Cleome 57
Clovers 91-92
Collards 36
Compost 95
Compost Starter 95
Copper 95
Corn 13-15, 67
Cosmos 57
Cover Crops 88-92
Cress 34, 48
Cucumbers 20
Daikon 27
Delphinium 68
Dill 47
Dry Beans 11, 12
Echinacea 50
Eggplant 39
Endive 34
Everlastings 66-67
Fava Bean 11
Fennel 48
Fertilizers 94
Flame Weeders 100
Flowering Kale 58, 63
Foliar Sprays 94, 96
Fungicides 95-96
Gardener Care 103
Globe Amaranth 66
Gourds 25, 77
Grasses & Grains 89-90
Greens 30, 34-35, 77
Herbs 47-51
Hand Tools 99
Hemp Twine 102
Hollyhocks 69
Hot Peppers 40, 41-42, 77
Husk Cherry 42
Impatiens 64
Inoculant 16, 91
Insecticides 96
Kale 36-37, 38
Kaolin Clay 96
Kohlrabi 37, 38
Labels & Markers 102
Larkspur 58
Lavatera 58
Lawn Grass 89
Leeks 28
Legumes 91-92
Lettuce 31-33, 77
Luffa 25
Mâche 34
Marigolds 59, 64
Medicinal Herbs 49-51
Melons 17-19, 77
Menafee Humates 93
Mesclun 33
Minutina 35
Morning Glories 59, 64
Mustards 35
Nasturtiums 60, 64
Novador 96
Oats 90
Okra 39
Onions 29, 77
Onion Sets 78
Orach 35
Oriental Greens 67, 77
Ornamental Grasses 67
Pac Choi 35
Parsley 35
Parsnip 28, 77
Pasture Grasses 89-90
Pasture Legumes 91-92
Peas 16-17, 77
Peppers 40-42, 77
Perennial flowers 68-70
Pest Control 95-96
Petunias 65
Phosphate 93
Planter's II 93
Popcorn 15, 67
Poppies 60, 69
Portulaca 65
Potatoes 79-86
  Collections 81
  Early 81, 84
  Fingerlings 81, 83
  Late 82, 86
  Mid-Season 81, 85
  Minitubers 83
  Organic 81-82
Potting Mixes 97
Pumpkins 22, 24
Purslane 30
Raab 37
Radicchio 30
Radishes 27
Rock Powders 93
Root crops 26-28, 77
Row Covers 98
Rutabaga 28
Rye 89, 90
Scallions 28
Scorzonera 28
Scythes 101
Season Extenders 98
Seaweeds 94
Seeder 100
Seed-Starting 97
Shallot Sets 78
Shiso 48
Smart Cart 101
Snapdragons 65, 77
Snow & Snap Peas 17
Soil Amendments 93
Soil Blockers 97
Soil Testing 99
Sorrel 35
Soybean 12
Spinach 30
Sprayers 100
Squash 21-23
Statice 67
Strawflowers 67
Summer Squash 21
Sunchokes 78
Sunflowers 61, 65
Sweet Peas 62
T Shirts 71
Thermometers 99
Timothy 89
Tomatillo 42
Tomatoes 43-46, 77
Tools 99-101
Turnips 28
Verbena 62, 65
Vetch 91
Watering Can 100
Watermelon 18, 19, 77
Wheat 90
Winter Squash 22-23
Womanswork Gloves 103
Zinnias 62, 65
Zucchini 21



Fedco Seeds
PO Box 520
Waterville, ME 04903-0520

address service requested

Bulk Rate
U.S. Postage
PAID
Fedco Seeds Inc.